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Enumeration and Wilf-classification of permutations avoiding four patterns of length 4

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Abstract

Let $\mathcal{S}_n$ be the symmetric group of all permutations of n letters. We show that there are exactly 1100 distinct Wilf classes for the permutations avoiding four patterns of length 4. Moreover, for each $T \subset S_4$ with $\#T = 4$, we determine the generating function for the number of permutations in $\mathcal{S}_n(T)$, the set of all permutations of length n that avoid each pattern in T.

Keywords: pattern avoidance; Wilf-equivalence; generating functions.

2020 Mathematics Subject Classification: 05A05, 05A15.

1. Introduction

A *permutation* on the set $[n] := \{1, 2, \ldots, n\}$ is any arrangement of the elements of $[n]$. We denote the set of all permutations on $[n]$ by $\mathcal{S}_n$. For $\tau = \tau_1\tau_2\cdots\tau_k \in \mathcal{S}_k$ and $\sigma = \sigma_1\sigma_2\cdots\sigma_n \in \mathcal{S}_n$, we say that τ appears as a *pattern* in σ if there exist k indices $1 \le i_1 < i_2 < \cdots < i_k \le n$ such that $\sigma_{i_a} < \sigma_{i_b}$ if and only if $\tau_a < \tau_b$ for all $1 \le a, b \le k$. Otherwise, we say that σ *avoids* the pattern τ. We denote the set of all permutations in $\mathcal{S}_n$ that avoid τ by $\mathcal{S}_n(\tau)$. More generally, for a set T of patterns, we use the notation $\mathcal{S}_n(T) = \cap_{\tau\in T}\mathcal{S}_n(\tau)$. The research of pattern avoidance has received a lot of attention in the last couple of decades. Initial results obtained by Knuth [17], and Simion and Schmidt [32], enumerated the permutations in $\mathcal{S}_n$ that avoid a single pattern of length 3 or any subset of patterns of length 3, respectively. In particular, Knuth [17] showed that

$$\#\mathcal{S}_n(\tau) = C_n = \frac{1}{n+1}\binom{2n}{n}, \quad \tau \in \mathcal{S}_3, \tag{1}$$

where C_n denotes the *Catalan numbers*. Note that the generating function for the Catalan numbers is given by $C(x) = \sum_{n\ge 0} C_n x^n = \frac{1-\sqrt{1-4x}}{2x}$ and it satisfies the equation $C(x) = 1 + xC^2(x)$.

Let T and T' be any two sets of patterns. We say that T and T' belong to the same *symmetry class* if and only if T' can be obtained from T by the action of the dihedral group of order eight – generated by the operations reverse, complement and inverse – on T. Moreover, we say that T and T' belong to the same *Wilf class* if and only if $\#\mathcal{S}_n(T) = \#\mathcal{S}_n(T')$ for all $n \ge 0$.

We use w_k to denote the number of distinct Wilf classes for the permutations avoiding exactly k distinct patterns from $\mathcal{S}_4$. The class of permutations avoiding a single pattern from $\mathcal{S}_4$ has been studied extensively, see [34, 35, 39]. It is known that there are 7 symmetry classes of permutations avoiding a single pattern from $\mathcal{S}_4$, and there are 3 Wilf classes, thus we have $w_1 = 3$. Bóna [8] found an explicit formula for the generating function for the number of permutations in $\mathcal{S}_n(1342)$, and Regev [31] (see also, [15, 16]) found an explicit formula for the generating function for the number of permutations in $\mathcal{S}_n(1234)$. Enumeration of the remaining Wilf class, $\mathcal{S}_n(1324)$, is still an important open problem in the field.

For pairs of patterns in $\mathcal{S}_4$, there are 56 symmetry classes. Le [20] established that there are 38 Wilf classes, that is $w_2 = 38$. Vatter [37] showed that 12 of the 38 Wilf classes can be enumerated with so-called regular insertion encoding algorithm (the INSENC algorithm). The algorithm can compute the (necessarily rational) generating function for any class of permutations avoiding a set T of patterns that has a regular insertion encoding (see also [2]). Some of these generating functions were computed by hand by Kremer and Shiu [18]. Miner computed the generating functions for the permutation classes $\{4123, 1324\}, \{4123, 1243\}$, and $\{4123, 1342\}$ in [29]. Miner and Pantone [30] studied the final two Wilf classes $\{2413, 3412\}$ and $\{3412, 4123\}$. For details on enumeration of each 38 Wilf classes, we refer the reader to [33, Sequences A006317-A006318,A029759,A032351,A047849,A053617,A109033,A116704-10,A164651,A165524-A165646,A206736].

For triples of patterns from $\mathcal{S}_4$, it was shown by Callan, Mansour and Shattuck [11, 12] that $w_3 = 242$. Moreover, in [11–13] they found an explicit formula for the generating function for the number of permutations in $S_n(T)$ with $T \subset S_4$

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and $\#T = 3$ expect only one case, where it is conjectured not to be differentially algebraic (see [2] and [33, Sequence A257562]).

Later, Mansour and Schork [21–23] showed that

$$\begin{array}{llllll} w_6 = 8438, & w_7 = 15392, & w_8 = 19002, & w_9 = 16293, & w_{10} = 10624, & w_{11} = 5857, \\ w_{12} = 3044, & w_{13} = 1546, & w_{14} = 786, & w_{15} = 393, & w_{16} = 198, & w_{17} = 105, \\ w_{18} = 55, & w_{19} = 28, & w_{20} = 14, & w_{21} = 8, & w_{22} = 4, & w_{23} = 2 \\ w_{24} = 1. & & & & & \end{array}$$

To obtain these results, namely computing w_k for $k = 3$ and $6 \leq k \leq 24$, they used several software programs:

- First, they used the software of Kuszmaul [19] to create all symmetry classes $\mathcal{SC}_k$ of k patterns in $\mathcal{S}_4$ and the sequence $(\#\mathcal{S}_n(T))_{n=1}^{16}$ for every $T \in \mathcal{SC}_k$.
- Second, they used INSENC software (for example, see [37]) and they found (if possible) the generating function $F_T(x) = \sum_{n\geq 0} \#\mathcal{S}_n(T)x^n$ for all $T \in \mathcal{SC}_k$ with $k = 3, 6, 7, \ldots, 24$. Those symmetry classes for which the generating function can be determined in this automatic way are called *regular*, all other symmetry classes are called *non-regular*.
- Third, they found w_k with $k = 6, 7, \ldots, 24$ by determining the generating functions $F_T(x)$ for all non-regular subsets T with $\#T = k$ by hand.

Thus, it remains to find w_4 and w_5. One of the aims of this paper is to show that $w_4 = 1100$, see Theorem 2.1.

2. Enumeration and Wilf-classification of permutations avoiding four patterns in $\mathcal{S}_4$

Note that there are 10626 subsets of $\mathcal{S}_4$ with 4 elements. By software of Kuszmaul [19], we see that there are 1524 symmetry classes for such subsets, $\#\mathcal{SC}_4 = 1524$, see Table 1. In order to find w_4, we use the following three steps. More precisely, we first determine the generating function $F_T(x)$, for each non-regular subset T with $T \in \mathcal{SC}_4$. Then, by using INSENC software, we found an explicit formula for the generating function $F_T(x)$, for all regular subset $T \in \mathcal{SC}_4$, which determines 1163 such cases which are listed in Table 1 (see those lines that not marked by $*$ or †). Therefore, we are left with 361 cases, that is, there are 361 non-regular classes in $\mathcal{SC}_4$. We list them in Table 1 with the subset T being marked by $*$ and † if the generating function $F_T(x)$ is rational or non-rational, respectively. After a tremendous work with small details, we can formulate our main result.

Theorem 2.1. *The generating functions $F_T(x)$ with $T \in \mathcal{SC}_4$ are given in Table 1. In particular, we have $w_4 = 1100$, which shows that there are exactly 181 non-regular symmetry classes determined by rational generating functions and 180 non-regular symmetry classes determined by non-rational generating functions.*

As consequence of the above theorem we have the following result.

Corollary 2.1. *There are exactly 79 Wilf classes that are determined by an algebraic and non-rational generating function $F_T(x)$.*

Most of these algebraic non-rational generating functions are expressed in terms of the generating function $C(x)$ of Catalan numbers.

Note that some cases in Theorem 2.1 depend on the enumeration of permutations avoiding a pattern in $\mathcal{S}_3$ and/or a pattern in $\mathcal{S}_4$. We refer the reader to [38] for a survey of these results, and also the references [5, 24–26, 36, 40] for other results in this direction.

The first step in the proof of this theorem is done by Callan and Mansour [9, 10]. They determined the generating function for each non-regular symmetry class $T \in \mathcal{SC}_4$ such that the symmetry class has exactly either 2 (see [9]), 3 or 4 (see [10]) subsets of four patterns from $\mathcal{S}_4$. Note that in [9] it is missed to determine the generating functions for some non-regular symmetry classes $T \in \mathcal{SC}_4$, where each symmetry class has exactly 2 subsets, as can be seen from Table 1.

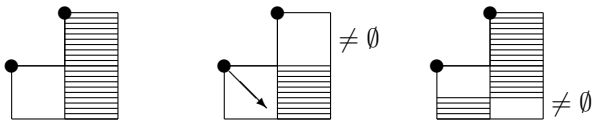
For the sake of the reader, we have decided not to present all the details of the proof of the main result but only explain the methods and the techniques used in order to determine the 361 non-regular symmetric classes as stated in Theorem 2.1. We also provide examples for each case to clarify the methods.

Left-Right-Maxima: A permutation π expressed as $\pi = i_1\pi^{(1)}i_2\pi^{(2)}\cdots i_m\pi^{(m)}$ where $i_1 < i_2 < \cdots < i_m$ and $i_j > \max(\pi^{(j)})$ for $1 \leq j \leq m$ is said to have m *left-right maxima* (at $i_1, i_2, \ldots, i_m$).

For a given set of patterns T (or its symmetry class), we define $\mathcal{LRM}_{n,m}(T)$ to be the set of all permutations in $\mathcal{S}_n(T)$ having exactly m left-right-maxima. To find the generating function $F_T(x)$, we have to determine the generating function $F_T(x;m) = \sum_{n\geq m} \#\mathcal{LRM}_{n,m}(T)x^n$, for all $m \geq 1$ (clearly, the generating function in the case $m = 0$ is given by 1), for several examples see [11–13].

Example 2.1. *Let $T = T_{626,1}$ in Table 1, namely $T = \{2431, 2413, 3142, 1243\}$. Note that $F_T(x;0) = 1$, and $F_T(x;1) = xF_T(x;1)$ which can be illustrated as*

Now let us write a formula for $F_T(x;2)$. Let $\pi = i\pi' n\pi'' \in \mathcal{LRM}_{n,2}(T)$ with $i > \pi'$ (we write $\alpha > \beta$ if each letter in α greater than each letter of β). If $\pi'' = \emptyset$ then we have a contribution of $x^2F_T(x)$. Otherwise, $\pi'' \neq \emptyset$, (1) if $\pi'' > i$ then $\pi = i(i-1)\cdots 1n\pi''$ and $\pi'' \neq \emptyset$ avoids 132; (2) if $\pi'' < i$ then $\pi = i\pi' n\pi''$ with $i > \pi' > \pi''$, π' avoids 132 and $\pi'' \neq \emptyset$ avoids T. So, the contributions of (1) and (2) are given by $x^2C(x)(F_T(x)-1)$ and $\frac{x^2}{1-x}(C(x)-1)$, respectively. This decomposition can be illustrated as



and it leads to

$$F_T(x;2) = x^2F_T(x) + x^2C(x)(F_T(x)-1) + \frac{x^2}{1-x}(C(x)-1).$$

Now, let us write a formula for $F_T(x;m)$ with $m \geq 3$. Any permutation $\pi \in \mathcal{LRM}_{n,m}(T)$ can be written as $\pi = i_1\pi^{(1)}i_2\pi^{(2)}\cdots i_m\pi^{(m)}$, where either (1) $\pi^{(m)} = \emptyset$, here the contribution is $xF_T(x;m-1)$; or (2) $\pi^{(m)} \neq \emptyset$ and $\pi^{(m)} > i_1$, here $\pi = i_1(i_1-1)\cdots 1i_2\pi^{(2)}\cdots i_m\pi^{(m)}$ and $\pi_{(2)} > \cdots > \pi^{(m)} > i_1$ with $\pi^{(j)}$ avoids 132 for all j, which leads to contribution of $\frac{x^m}{1-x}C^{m-2}(x)(C(x)-1)$; or (3) $\pi^{(m)} \neq \emptyset$ and $\pi^{(m)} < i_1$, here $\pi^{(1)} > \cdots > \pi^{(m-1)} > \pi^{(m)}$ such that $\pi^{(m)}$ avoids T and $\pi^{(j)}$ avoids 132 for all $j \in [m-1]$, which leads to contribution of $x^mC^{m-1}(x)(F_T(x)-1)$. Thus,

$$F_T(x;m) = xF_T(x;m-1) + \frac{x^m}{1-x}C^{m-2}(x)(C(x)-1) + x^mC^{m-1}(x)(F_T(x)-1).$$

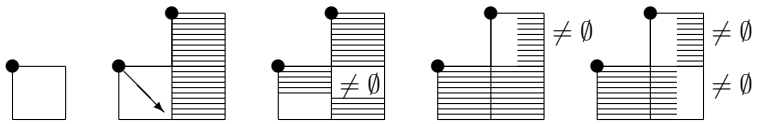
By adding all the contributions, we obtain

$$F_T(x) = 1 + xF_T(x) + x(F_T(x)-1) + \frac{x^2}{(1-x)(1-xC(x))}(C(x)-1) + \frac{x^2C(x)(F_T(x)-1)}{1-xC(x)}.$$

By solving for $F_T(x)$, we obtain

$$F_T(x) = C(x) + \frac{x^3}{1-x}C^5(x).$$

Example 2.2. *Let $T = T_{615,1}$ in Table 1, namely $T = \{2413, 2143, 3241, 3124\}$. The decompositions of case $m = 1, 2$ can be illustrated as*



which leads to $F_T(x;1) = xF_T(x)$ and

$$F_T(x;2) = \frac{x^2}{1-x} + x^2(F_T(x)-1)(1+x) + x^2(F_T(x)-1) + x^2(C(x)-1)(F_T(x)-1).$$

As in case $m = 2$, we see that

$$F_T(x;m) = xF_T(x;m-1) + x^{m+1}F_T(x) + \frac{x^{m+2}}{1-x} + \sum_{j=1}^{m-2}\left(x^{m+1}(F_T(x)-1) + \frac{x^{m+1}}{(1-x)^j} + \frac{x^{m+2}}{(1-x)^{j+1}}\right) + x^mC^{m-1}(F_T(x)-1).$$

By taking $F_T(x) = 1 + \sum_{m\geq 1} F_T(x;m)$ and then solving for $F_T(x)$, we obtain

$$F_T(x) = \frac{1 - 5x + 9x^2 - 7x^3 + 3x^4 - x(1 - 4x + 5x^2 - 2x^3 + x^4)C(x)}{(1-2x)(1 - 4x + 5x^2 - 3x^3 - x(1 - 3x + 3x^2 - 2x^3)C(x)}.$$

τ-reduction argument: Suppose we have a set of patterns T (in the present paper, $T \in \mathcal{SC}_4$), and a pattern $\tau \in \mathcal{S}_3$ such that each pattern $\sigma \in T$ contains τ. Then, to determine the generating function $F_T(x)$, it is worth to consider all the permutations in $\mathcal{S}_n$ that either avoid τ or contain τ. Thus, by (1) we have that

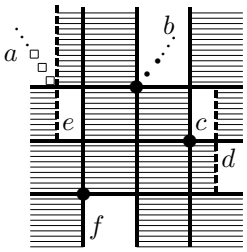
$$F_T(x) = F_{\{\tau\}}(x) + F_{T;\tau}(x) = C(x) + F_{T;\tau}(x),$$

where $F_{T;\tau}(x) = \sum_{n\geq 0} \#\mathcal{S}_n(T;\tau)x^n$ is the generating function for the number of permutations in $\mathcal{S}_n$ that avoid all the patterns in T and contain the pattern τ, for some examples, see [27].

Example 2.3. *Let $T = T_{394,4}$ in Table 1, namely $T = \{2413, 2431, 1324, 1243\}$. Let $\tau = 123$. Then by τ-reduction argument we have that*

$$F_T(x) = C(x) + G(x),$$

where $G(x)$ is the generating function for the number of permutations in $\mathcal{S}_n(T;\tau)$. By representing the permutations $\pi = \pi_1\pi_2\cdots\pi_n$ in $\mathcal{S}_n(T;\tau)$ as $\{(i,\pi_i) \mid i = 1,2,\ldots,n\}$ in $\mathbb{N}^2$, we see that we have the following decomposition



where the dots (i,π_i) lies only on the cells b,c,d,e,f and on the decreasing cells of a. Here, f forms a decreasing sequence, each of b,c forms an increasing sequence, d forms a sequence that avoids both 213 and 132, each small cell in a avoids 132, the cell e avoids 132, and if b has m points then a has $m+1$ small cells. Thus,

$$\sum_{n\geq 0} \#\mathcal{S}_n(T;\tau)x^n = \frac{x^3C^2(x)}{(1-x)(1-2x)(1-xC(x))} = \frac{x^3C^3(x)}{(1-x)(1-2x)},$$

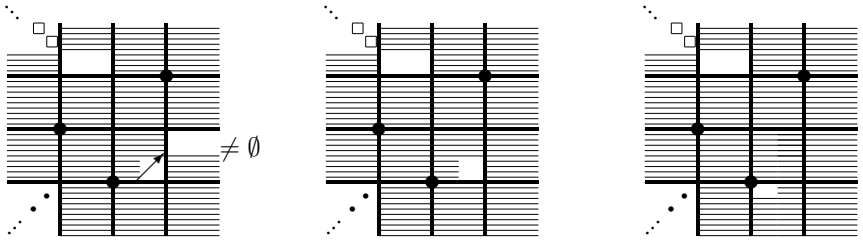
which leads to

$$F_T(x) = C(x) + \frac{x^3C^3(x)}{(1-x)(1-2x)}.$$

Example 2.4. *Let $T = T_{891,1}$ in Table 1, namely $T = \{2134, 2143, 2314, 3241\}$. Let $\tau = 213$. Then by τ-reduction argument we have that*

$$F_T(x) = C(x) + G(x),$$

where $G(x)$ is the generating function for the number of permutations in $\mathcal{S}_n(T;\tau)$. The permutations in $\mathcal{S}_n(T;\tau)$ can be decomposed as



This leads to

$$G(x) = \sum_{n\geq 0} \#\mathcal{S}_n(T;\tau)x^n = \frac{x^3C^3(x)(F_T(x)-1)}{1-x} + \frac{x^3C^3(x)(1-x)}{1-2x} + \frac{x^4C^4(x)}{1-2x}.$$

Hence, by $F_T(x) = C(x) + G(x)$, we obtain

$$F_T(x) = \frac{((1-x)(1-2x) + x^4C^2(x))C(x)}{(1-2x)(1-x-x^3C^3(x))}.$$

Generating trees: Generating tree technique to enumerate $\mathcal{S}_n(T)$ was introduced by West [39]. To enumerate $\mathcal{S}_n(T)$, we consider the generating forest $\mathcal{T}(T)$ whose vertices are identified with $\cup_{n\geq 2}\mathcal{S}_n(T)$ where 12 and 21 are the roots and each non-root π is a child of the permutation obtained from π by removing its largest element. We will specify the generating forest by (i) the roots, and (ii) a set of succession rules explaining how to derive from a parent to its children. For instance, see [11–13] and references therein for several cases of enumerations $\mathcal{S}_n(T)$ when $\#T = 3$ and $T \subset \mathcal{S}_4$.

Example 2.5. *Let $T = T_{630,1}$ in Table 1, namely $T = \{1423, 1432, 3142, 2413\}$. Then it is not hard to show that $\mathcal{T}(T)$ is given by*

$$\begin{aligned}\textbf{Roots}&: 12, 21,\\ \textbf{Rules}&: \alpha_k \rightsquigarrow \alpha_2, \alpha_3, \ldots, \alpha_k, \alpha_k, \beta_k,\\ &\quad\ \beta_k \rightsquigarrow \alpha_2, \alpha_3, \ldots, \alpha_{k+1}, \beta_{k+1},\end{aligned}$$

where $\alpha_k = (k-1)k(k-2)(k-3)\cdots 1$ and $\beta_k = k(k-1)\cdots 1$. Denote $A_k(x)$ and $B_k(x)$ to be the generating function for the number of permutations α_k and β_k in the n-th level of the tree $\mathcal{F}_T$, where the roots are located at the second level. Then

$$B_k(x) = x^2\delta_{k=2} + xB_{k-1}(x) + xA_k(x)$$

and

$$A_k(x) = x^2\delta_{k=2} + xB_{k-1}(x) + xA_k(x) + x\sum_{j\geq k-1}(B_j(x) + A_j(x))$$

with $A_1(x) = 0$. Define $A(x,v) = \sum_{j\geq 2} A_k(x)v^{k-2}$ and $B(x,v) = \sum_{j\geq 2} B_k(x)v^{k-2}$. Then these recurrences can be written as

$$\begin{aligned}B(x,v) &= x^2 + xvB(x,v) + xA(x,v),\\ A(x,v) &= A(x,0) + x(A(x,v) - A(x,0)) + xvB(x,v) + \frac{xv}{1-v}(A(x,1) + B(x,1) - A(x,v) - B(x,v)),\\ A(x,0) &= x^2 + xB(x,1) + xA(x,1) + xA(x,0).\end{aligned}$$

This implies

$$\left(1 - x + \frac{xv}{(1-v)(1-xv)}\right)A(x,v) = \frac{x}{(1-x)(1-v)}A(x,1) + \frac{x^2}{(1-x)(1-xv)}.$$

To solve the preceding functional equation, we apply the kernel method and take

$$v = v_0 = \frac{1 - x - x^2 - \sqrt{x^4 - 2x^3 + 7x^2 - 6x + 1}}{2x(1-x)}.$$

Thus, by substituting $v = v_0$ into this equation, we obtain that $A(x,1) = \frac{x(1-v_0)}{xv_0 - 1}$. Hence, by the fact that $B(x,1) = \frac{x^2}{1-x} + \frac{x}{1-x}A(x,1)$, we have that $F_T(x) = 1 + x + A(x,1) + B(x,1)$, which leads to

$$F_T(x) = \frac{1 - x + x^2 - \sqrt{x^4 - 2x^3 + 7x^2 - 6x + 1}}{2x}.$$

Example 2.6. *Let $T = T_{630,2}$ in Table 1, namely $T = \{1342, 1423, 3142, 2413\}$. Then $\mathcal{T}(T)$ is given by*

$$\begin{aligned}\textbf{Roots}&: 12, 21,\\ \textbf{Rules}&: \alpha_k \rightsquigarrow \alpha_2, \alpha_3, \ldots, \alpha_k, \alpha_k, \beta_k,\\ &\quad\ \beta_k \rightsquigarrow \alpha_2, \alpha_3, \ldots, \alpha_{k+1}, \beta_{k+1},\end{aligned}$$

where $\alpha_k = (k-1)k(k-2)(k-3)\cdots 1$ and $\beta_k = k(k-1)\cdots 1$. By similar argument as in Example 2.5, we have

$$F_T(x) = \frac{1 - x + x^2 - \sqrt{x^4 - 2x^3 + 7x^2 - 6x + 1}}{2x}.$$

Scanning-elements algorithm: Following [14] (also see [41,42]), we use the scanning element algorithm to study several cases on Table 1.

Example 2.7. *Let $T = T_{625,1}$ in Table 1, namely $T = \{2314, 2413, 3142, 3241\}$. Let $a_n = \#\mathcal{S}_n(T)$ and we denote the number of permutations $\pi = i\pi' \in \mathcal{S}_n(T)$ by $a_n(i)$. Then $a_n = a_n(n) + a_n(1) + \sum_{i=2}^{n-1} a_n(i)$, which implies*

$$a_n = 2a_{n-1} + \sum_{i=2}^{n-1} a_n(i).$$

If $\pi = ij\pi' \in \mathcal{S}_n(T)$ such that $j > i$, then π can be decomposed as $\pi = ij\alpha\beta$, where $j\alpha$ avoids 213 and $\beta \in \mathcal{S}_{i-1}(T)$. If $\pi = ij\pi' \in \mathcal{S}_n(T)$ such that $i > j$, then π can be decomposed as $\pi = ij\alpha\beta$, where $j\alpha$ avoids 231 and $\beta \in \mathcal{S}_{n-i}(T)$. Hence, the sequence a_n satisfies the recurrence relation $a_n = 2a_{n-1} + \sum_{i=2}^{n-1}(C_{n-i}a_{i-1} + a_{n-i}C_{i-1})$, which is equivalent to

$$a_n = 2\sum_{i=1}^{n-1} C_{n-1-i}a_i,$$

where $a_0 = a_1 = 1$ and C_i is the ith Catalan number. Since $F_T(x) = \sum_{n\geq 0} a_i x^i$, we have $F_T(x) - 1 - x = 2x(C(x)F_T(x) - C(x))$, which implies

$$F_T(x) = \frac{1 + x - 2xC(x)}{1 - 2xC(x)} = 1 + \frac{x}{\sqrt{1-4x}},$$

as required.

Example 2.8. *Let $T = T_{1099,1}$ in Table 1, namely $T = \{2341, 1324, 1342, 1243\}$. Define $f_n(i_1, i_2, \ldots, i_j)$ to be the number of permutations $\pi = i_1 i_2 \cdots i_j \pi' \in \mathcal{S}_n(T)$ that avoid T. Also, we define $f_n = \#\mathcal{S}_n(T)$. Let $n \geq 3$. Then, by definitions, we see*

$$f_n(i) = \sum_{j=1}^{i-1} f_n(i,j) + f_n(i, i+1) + f_n(i, n), \quad f_n(n) = f_n(n-1) = f_{n-1},$$

which, by simple combinatorial arguments as in Example 2.7, implies

$$f_n(i) = \sum_{j=1}^{i-1} f_{n-1}(j) + f_{n-1}(i) + Fib_{2i-3},$$

where Fib_m is the m-th Fibonacci number ($Fib_0 = 0$, $Fib_1 = 1$ and $Fib_m = Fib_{m-1} + Fib_{m-2}$ for $m \geq 2$).

Define $F_n(v) = \sum_{i=1}^{n} f_n(i) v^{i-1}$. Then by multiplying the above recurrence relation by v^{i-1} and summing over $i = 1, 2, \ldots, n$, we obtain

$$F_n(v) = v^{n-2}(1+v)F_{n-1}(1) + \frac{1}{1-v}(F_{n-1}(v) - v^{n-2}F_{n-1}(1)) + \sum_{i=1}^{n-2} Fib_{2i-3} v^{i-1}$$

with $F_2(v) = 1 + v$.

Define $F(x, v) = \sum_{n\geq 2} F_n(v) x^n$. Then the last recurrence can be written as

$$\left(1 - \frac{x}{v(1-v)}\right) F(x/v; v) = \frac{1+v}{v^2}x^2 + \left(\frac{x(1+v)}{v^2} - \frac{x}{v^2(1-v)}\right) F(x; 1) + \frac{x^3}{v^3(1-x/v)} \frac{1-2x}{1-3x+x^2}.$$

To solve the preceding functional equation, we apply the kernel method and take $v = 1/C(x)$, which leads to

$$F_T(x) = \frac{1 - 6x + 12x^2 - 9x^3 - (1 - 4x + 4x^2 - x^3)\sqrt{1-4x}}{2x^2(1 - 3x + x^2)} = (1-x)C^2(x) - \frac{x^2}{1-3x+x^2}.$$

In this paper, we complete the Wilf-classification problem for the permutations avoiding four patterns of length 4, that is, we determine all subsets $T, T' \subset \mathcal{S}_4$ with $\#T = \#T' = 4$ where $\#S_n(T) = \#S_n(T')$ for all $n \geq 0$. We will study w_5 in our next project in the near future.

Table 1: Generating functions

Begin of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
1	1	$\{4321, 4231, 1324, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 60x^5 + 140x^6 + 230x^7 + 196x^8 + 2x^9$
2	1	$\{4321, 2341, 4123, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 59x^5 + 126x^6 + 173x^7 + 151x^8 + 73x^9$
3	1	$\{4321, 4213, 1342, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 58x^5 + 118x^6 + 148x^7 + 126x^8 + 58x^9$
4	1	$\{4321, 2413, 3142, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 56x^5 + 92x^6 + 92x^7 + 54x^8 + 14x^9$
5	1	$\{4321, 2143, 3412, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 52x^5 + 48x^6$
6	1	$\{4321, 2143, 1324, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 58x^5 + 114x^6 + 152x^7 + 117x^8 + 47x^9$
7	1	$\{4321, 2134, 1432, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 59x^5 + 128x^6 + 175x^7 + 132x^8 + 45x^9$
8	1	$\{4321, 2134, 1243, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 61x^5 + 121x^6 + 135x^7 + 73x^8 + 16x^9$
9	1	$\{4321, 4312, 3412, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 60x^5 + 121x^6 + 146x^7 + 95x^8 + 25x^9$
10	1	$\{4321, 4312, 1342, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 59x^5 + 121x^6 + 140x^7 + 83x^8 + 20x^9$
11	1	$\{4321, 4312, 1324, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 60x^5 + 131x^6 + 177x^7 + 99x^8$
12	1	$\{4321, 4312, 1243, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 60x^5 + 116x^6 + 120x^7 + 48x^8$
13	1	$\{4321, 3412, 3142, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 56x^5 + 90x^6 + 86x^7 + 39x^8 + 9x^9$
14	1	$\{4321, 3412, 4132, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 57x^5 + 104x^6 + 113x^7 + 65x^8 + 16x^9$
15	1	$\{4321, 3412, 1432, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 55x^5 + 92x^6 + 57x^7$
16	1	$\{4321, 3412, 1324, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 56x^5 + 91x^6 + 67x^7$
17	1	$\{4321, 3412, 4123, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 58x^5 + 124x^6 + 178x^7 + 150x^8 + 57x^9$
18	1	$\{4321, 3412, 1423, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 57x^5 + 102x^6 + 101x^7 + 46x^8 + 9x^9$
19	1	$\{4321, 3412, 1243, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 56x^5 + 82x^6 + 50x^7$
20	1	$\{4321, 3142, 1342, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 59x^5 + 120x^6 + 149x^7 + 99x^8 + 29x^9$
21	1	$\{4321, 3142, 1324, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 58x^5 + 116x^6 + 150x^7 + 105x^8 + 29x^9$
22	1	$\{4321, 3142, 4123, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 57x^5 + 112x^6 + 124x^7 + 69x^8 + 19x^9$
23	1	$\{4321, 3142, 1423, 1234\}$	$1 + x + 2x^2 + 6x^3 + 20x^4 + 58x^5 + 115x^6 + 147x^7 + 108x^8 + 36x^9$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
24	1	$\{4321, 3142, 1243, 1234\}$	$1+x+2x^2+6x^3+20x^4+58x^5+106x^6+114x^7+63x^8+14x^9$
25	1	$\{4321, 3124, 1432, 1234\}$	$1+x+2x^2+6x^3+20x^4+58x^5+118x^6+136x^7+94x^8+33x^9$
26	1	$\{4321, 3124, 1342, 1234\}$	$1+x+2x^2+6x^3+20x^4+59x^5+116x^6+133x^7+67x^8+11x^9$
27	1	$\{4321, 3124, 1423, 1234\}$	$1+x+2x^2+6x^3+20x^4+59x^5+120x^6+138x^7+42x^8+4x^9$
28	1	$\{4321, 3124, 1243, 1234\}$	$1+x+2x^2+6x^3+20x^4+61x^5+134x^6+204x^7+174x^8+60x^9$
29	1	$\{4321, 4132, 1342, 1234\}$	$1+x+2x^2+6x^3+20x^4+60x^5+130x^6+164x^7+114x^8+37x^9$
30	1	$\{4321, 4132, 1324, 1234\}$	$1+x+2x^2+6x^3+20x^4+61x^5+140x^6+207x^7+147x^8+36x^9$
31	1	$\{4321, 4132, 1423, 1234\}$	$1+x+2x^2+6x^3+20x^4+60x^5+130x^6+170x^7+116x^8+34x^9$
32	1	$\{4321, 4132, 1243, 1234\}$	$1+x+2x^2+6x^3+20x^4+61x^5+130x^6+159x^7+92x^8+20x^9$
33	1	$\{4321, 1432, 1324, 1234\}$	$1+x+2x^2+6x^3+20x^4+62x^5+151x^6+235x^7+197x^8+90x^9$
34	1	$\{4321, 1432, 4123, 1234\}$	$1+x+2x^2+6x^3+20x^4+58x^5+122x^6+136x^7+48x^8$
35	1	$\{4321, 1432, 1423, 1234\}$	$1+x+2x^2+6x^3+20x^4+62x^5+146x^6+198x^7+140x^8+39x^9$
36	1	$\{4321, 1432, 1243, 1234\}$	$1+x+2x^2+6x^3+20x^4+62x^5+144x^6+200x^7+145x^8+45x^9$
37	1	$\{4321, 1342, 4123, 1234\}$	$1+x+2x^2+6x^3+20x^4+59x^5+122x^6+150x^7+96x^8+35x^9$
38	1	$\{4321, 1342, 1423, 1234\}$	$1+x+2x^2+6x^3+20x^4+62x^5+147x^6+228x^7+197x^8+79x^9$
39	1	$\{4321, 1324, 4123, 1234\}$	$1+x+2x^2+6x^3+20x^4+60x^5+132x^6+169x^7+66x^8+6x^9$
40	1	$\{4321, 1324, 1423, 1234\}$	$1+x+2x^2+6x^3+20x^4+62x^5+149x^6+242x^7+204x^8+60x^9$
41	1	$\{4321, 1324, 1243, 1234\}$	$1+x+2x^2+6x^3+20x^4+63x^5+156x^6+274x^7+288x^8+144x^9$
42	1	$\{4321, 4123, 1423, 1234\}$	$1+x+2x^2+6x^3+20x^4+61x^5+144x^6+208x^7+103x^8+25x^9$
43	1	$\{4321, 4123, 1243, 1234\}$	$1+x+2x^2+6x^3+20x^4+61x^5+133x^6+152x^7+31x^8+3x^9$
44	1	$\{4321, 1423, 1243, 1234\}$	$1+x+2x^2+6x^3+20x^4+62x^5+137x^6+162x^7+49x^8+4x^9$
45	1	$\{3421, 4231, 4312, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+17x^5+18x^6-9x^7)/(1-x)^3$
46	1	$\{3421, 2143, 4312, 1234\}$	$(1+x^2+4x^3+14x^4+33x^5+13x^6-21x^7-2x^8)/(1-x)$
47	1	$\{3421, 2134, 4312, 1243\}$	$(1-x+x^2+3x^3+10x^4+20x^5-4x^6-16x^7)/(1-x)^2$
48	1	$\{3421, 4312, 3412, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+16x^5+10x^6)/(1-x)^3$
49	1	$\{3421, 4312, 3142, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+13x^5-4x^6-2x^7+6x^8-2x^9)/(1-x)^3$
50	1	$\{3421, 4312, 4132, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+15x^5-2x^6-27x^7+13x^8)/(1-x)^3$
51	1	$\{3421, 4312, 1432, 1234\}$	$(1+x^2+4x^3+14x^4+37x^5+47x^6+6x^7-5x^8)/(1-x)$
52	1	$\{3421, 4312, 1324, 1234\}$	$(1-x+x^2+3x^3+10x^4+23x^5+16x^6-8x^7-4x^8)/(1-x)^2$
53	1	$\{3421, 4312, 4123, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+15x^5+8x^6)/(1-x)^3$
54	1	$\{3421, 4312, 1423, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+14x^5+2x^6-8x^7+5x^8)/(1-x)^3$
55	1	$\{3421, 4312, 1243, 1234\}$	$(1-x+x^2+3x^3+10x^4+23x^5+6x^6-8x^7)/(1-x)^2$
56	1	$\{3241, 2431, 4312, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+16x^5+16x^6+x^7-10x^8+x^9)/(1-x)^3$
57	1	$\{3214, 4231, 1432, 1234\}$	$(1+x^2+4x^3+14x^4+35x^5+44x^6+23x^7+53x^8+66x^9+37x^{10}+10x^{11}+x^{12})/(1-x)$
58	1	$\{3214, 2431, 4312, 1234\}$	$(1+x^2+4x^3+14x^4+37x^5+54x^6+35x^7+16x^8+3x^9)/(1-x)$
59	1	$\{3214, 2431, 4132, 1234\}$	$(1-2x+x^3+6x^4+8x^5-31x^6-76x^7-7x^8+48x^9+153x^{10}+183x^{11}+65x^{12}-65x^{13}-99x^{14}-48x^{15}-10x^{16}-x^{17})/((1-x)(1-x-x^2-x^3)(1-x-x^2-2x^3-3x^4-x^5))$
60	1	$\{3214, 2341, 1432, 4123\}$	$(1-x+x^3+6x^4+12x^5+x^6+6x^7-2x^8-6x^9+2x^{10})/((1+x^2)(1-2x-x^2+x^3))$
61	1	$\{3214, 2143, 1432, 1234\}$	$(1-x-x^2-x^3-x^5)/(1-2x-x^2-2x^3-4x^4-6x^5-x^6-x^8-x^9)$
62	1	$\{3214, 2134, 1432, 1243\}$	$(1-2x)(1-x)^2/(1-5x+8x^2-6x^3+4x^5)$
63	1	$\{3214, 4312, 1432, 1234\}$	$(1+x^2+4x^3+14x^4+37x^5+54x^6+27x^7+6x^8+x^9)/(1-x)$
64	1	$\{3214, 3412, 1432, 1234\}$	$(1+x)(1-2x+3x^2+10x^4+9x^5)/(1-x)^2$
65	1	$\{3214, 3142, 1432, 1234\}$	$1/(1-x-x^2-3x^3-9x^4-16x^5-11x^6-x^7)$
66	1	$\{3214, 4132, 1432, 1234\}$	$(1+x^3+7x^4+24x^5+33x^6+12x^7+4x^8)/(1-x-x^2-2x^3-3x^4-x^5)$
67	1	$\{3214, 1432, 1324, 1234\}$	$(1-x-x^2-x^3)/((1+x)(1-3x+2x^2-4x^3-8x^5+8x^6+7x^7+7x^8))$, [7]
68	1	$\{3214, 1432, 4123, 1234\}$	$(1-x+x^3+6x^4+14x^5+x^6-12x^7)/((1+x^2)(1-2x-x^2+x^3))$
69	1	$\{3214, 1432, 1423, 1234\}$	$(1-x^2-2x^3)/(1-x-2x^2-4x^3-6x^4-14x^5-6x^6+13x^7+22x^8+10x^9)$
70	1	$\{3214, 1432, 1243, 1234\}$	$(1-x^2-3x^3-x^4)/(1-x-2x^2-5x^3-6x^4-12x^5-8x^6+8x^7+21x^8+16x^9+4x^{10})$
71	1	$\{4231, 2431, 4213, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5-5x^6-19x^7+22x^8-6x^9)/(1-x)^5$
72	1	$\{4231, 2431, 4312, 1234\}$	
	2	$\{4312, 4132, 1432, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+6x^5+3x^6-6x^7+2x^8)/(1-x)^5$
73	1	$\{4231, 2431, 4132, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5-x^6-10x^7+10x^8-3x^9)/(1-x)^5$
74	1	$\{4231, 2341, 2143, 4123\}$	
	2	$\{4231, 3412, 1243, 1234\}$	
	3	$\{2143, 3412, 1324, 1234\}$	
	4	$\{2143, 3412, 4123, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+2x^5-x^6)/(1-x)^5$
75	1	$\{4231, 2341, 4312, 4123\}$	
	2	$\{2314, 3124, 1432, 1324\}$	
	3	$\{2413, 3142, 1423, 1234\}$	$(1-x)^4(1-3x+2x^2-x^3)/(1-8x+26x^2-47x^3+52x^4-36x^5+17x^6-5x^7+x^8)$
76	1	$\{4231, 2341, 4312, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+x^5-4x^6-x^7+x^8)/(1-x)^6$
77	1	$\{4231, 2341, 3412, 4123\}$	
	2	$\{4213, 3412, 3142, 1342\}$	
	3	$\{2413, 3142, 3124, 1432\}$	
	4	$\{2413, 3124, 1432, 1423\}$	
	5	$*\{2143, 3142, 3124, 1423\}$	
	6	$\{2143, 3124, 1432, 1324\}$	
	7	$\{2134, 3142, 1423, 1234\}$	
	8	$\{3142, 3124, 1432, 1423\}$	
	9	$\{3142, 3124, 1243, 1234\}$	
	10	$\{3142, 1324, 1423, 1234\}$	
	11	$\{3142, 1423, 1243, 1234\}$	$(1-x)(1-3x+x^2)/(1-5x+7x^2-4x^3)$
78	1	$\{4231, 2341, 3142, 4123\}$	$(1-x)^5/(1-6x+14x^2-18x^3+11x^4-4x^5)$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
79	1	$\{4231, 2341, 4132, 4123\}$	$(1-2x)(1-x)^4/((1-3x)(1-4x+7x^2-6x^3+2x^4-x^5))$
80	1	$\{4231, 2341, 4132, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+x^5-2x^6-3x^7+x^8)/(1-x)^6$
81	1	$\{4231, 2341, 1432, 4123\}$	$(1-3x+3x^2+4x^4+6x^5-3x^6+x^7)/((1+x^2)(1-2x-x^2+x^3)(1-x)^2)$
82	1	$\{4231, 2341, 1324, 4123\}$	$(1-6x+16x^2-22x^3+20x^4-10x^5-2x^6+7x^7-3x^8)/(1-x)^7$
83	1	$\{4231, 2341, 4123, 1423\}$	$(1-6x+15x^2-19x^3+15x^4-4x^5)/((1-x)^3(1-4x+5x^2-3x^3))$
84	1	$\{4231, 2341, 4123, 1243\}$	$(1-6x+16x^2-22x^3+20x^4-8x^5-x^6+x^7)/(1-x)^7$
85	1	$\{4231, 2341, 4123, 1234\}$	
	2	$\{4231, 4123, 1243, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-6x^5+2x^6-x^7)/(1-x)^7$
86	1	$\{4231, 2314, 1342, 4123\}$	$(1-11x+54x^2-155x^3+289x^4-370x^5+331x^6-201x^7+75x^8-11x^9-x^{10})/((1-2x)(1-4x+5x^2-3x^3)(1-x)^6)$
87	1	$\{4231, 4213, 4132, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+6x^5+x^6-11x^7+5x^8)/(1-x)^5$
88	1	$\{4231, 4213, 1432, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+14x^5+6x^6-14x^7+8x^8)/(1-x)^3$
89	1	$\{4231, 4213, 1342, 1324\}$	
	2	$\{2413, 4312, 3142, 1243\}$	
	3	$*\{2413, 4312, 4132, 1324\}$	
	4	$\{4312, 3412, 3142, 1243\}$	
	5	$*\{4312, 3412, 1324, 1423\}$	
	6	$\{4312, 4132, 1342, 1324\}$	$(1-5x+8x^2-2x^3)/(1-2x)^3$
90	1	$\{4231, 4213, 1342, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-9x^5+5x^7-3x^8+x^9)/(1-x)^7$
91	1	$*\{4231, 2413, 3142, 1324\}$	$(1-8x+25x^2-36x^3+22x^4-4x^5+2x^6)/((1-x)(1-2x)^4)$, [4]
92	1	$\{4231, 2413, 3142, 1234\}$	$(1-8x+29x^2-60x^3+80x^4-72x^5+46x^6-18x^7+6x^8)/(1-x)^9$
93	1	$\{4231, 2413, 4132, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-10x^5+2x^6+x^8)/(1-x)^7$
94	1	$\{4231, 2143, 2134, 1243\}$	$(1-6x+16x^2-22x^3+20x^4-10x^5+2x^6+8x^7-8x^8+6x^9-x^{10})/(1-x)^7$
95	1	$\{4231, 2143, 4312, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+12x^5-7x^6-25x^7+14x^9)/(1-x)^3$
96	1	$*\{4231, 2143, 3412, 1324\}$	$(1-5x+10x^2-8x^3+5x^4-5x^5-2x^6)/((1-2x)(1-x)^4)$
97	1	$\{4231, 2143, 3412, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+10x^5-6x^6)/(1-x)^3$
98	1	$\{4231, 2143, 3142, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+2x^5-x^6+12x^7+2x^9)/(1-x)^5$
99	1	$\{4231, 2143, 4132, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+2x^5-6x^6+7x^7-2x^8)/(1-x)^5$
100	1	$\{4231, 2143, 1432, 1234\}$	$(1-4x+7x^2-4x^3+5x^4-9x^6+x^7-2x^8+17x^9-13x^{10}+x^{11}+x^{12})/(1-x)^5$
101	1	$\{4231, 2143, 1324, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+2x^5-2x^6-4x^8+4x^9-x^{10})/(1-x)^5$
102	1	$\{4231, 2143, 4123, 1234\}$	$(1-3x+4x^2+5x^4+7x^5+2x^6-6x^7+2x^8)/(1-x)^4$
103	1	$\{4231, 2143, 1423, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-2x^6+3x^7+x^8-2x^9)/(1-x)^5$
104	1	$\{4231, 2143, 1243, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5+2x^6+3x^8-x^9)/(1-x)^5$
105	1	$\{4231, 2134, 4312, 1243\}$	$(1-4x+7x^2-4x^3+5x^4+1x^5-16x^6+12x^7+2x^8-3x^9)/(1-x)^5$
106	1	$\{4231, 2134, 3412, 1243\}$	$(1-3x+4x^2+5x^4+4x^5-6x^6+x^7)/(1-x)^4$
107	1	$\{4231, 2134, 3142, 1243\}$	$(1-6x+16x^2-22x^3+20x^4-11x^5+4x^6+5x^7-4x^8+2x^9)/(1-x)^7$
108	1	$\{4231, 2134, 4132, 1243\}$	$(1-5x+11x^2-11x^3+9x^4-2x^5-1x^6+3x^7-x^8)/(1-x)^6$
109	1	$\{4231, 2134, 4132, 1234\}$	
	2	$\{4213, 3412, 4132, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5+3x^6)/(1-x)^5$
110	1	$\{4231, 2134, 1432, 1324\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5+1x^6+3x^7)/(1-x)^5$
111	1	$\{4231, 2134, 1432, 1243\}$	$(1-4x+7x^2-4x^3+5x^4+1x^5-4x^6+10x^7-7x^8+3x^9)/(1-x)^5$
112	1	$\{4231, 2134, 1432, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+13x^5+12x^6+13x^7-7x^8-4x^9+8x^{10})/(1-x)^3$
113	1	$\{4231, 2134, 1342, 4123\}$	$(1-7x+22x^2-38x^3+42x^4-29x^5+11x^6+1x^7-3x^8+x^9)/(1-x)^8$
114	1	$\{4231, 2134, 1342, 1423\}$	$(1-9x+37x^2-89x^3+140x^4-149x^5+111x^6-58x^7+22x^8-6x^9+x^{10})/(1-x)^{10}$
115	1	$\{4231, 2134, 1324, 1243\}$	$(1-5x+11x^2-11x^3+9x^4+2x^6-10x^8+5x^9-x^{10})/(1-x)^6$
116	1	$\{4231, 2134, 4123, 1243\}$	$(1-5x+11x^2-11x^3+9x^4-1x^5-1x^6+7x^7-5x^8+x^9)/(1-x)^6$
117	1	$\{4231, 2134, 1423, 1243\}$	$(1-5x+11x^2-11x^3+9x^4+3x^6+7x^7-3x^8)/(1-x)^6$
118	1	$\{4231, 2134, 1243, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+4x^6-2x^7-10x^8+5x^9-x^{10})/(1-x)^6$
119	1	$*\{4231, 4312, 3412, 1324\}$	
	2	$*\{4231, 3412, 1324, 4123\}$	$(1-8x+27x^2-48x^3+49x^4-31x^5+10x^6+2x^7-x^8)/((1-2x)^2(1-x)^5)$
120	1	$\{4231, 4312, 3412, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5+3x^6)/(1-x)^5$
121	1	$\{4231, 4312, 3142, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-4x^6-2x^7+2x^8)/(1-x)^5$
122	1	$\{4231, 4312, 4132, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+6x^5-4x^6-24x^7+27x^8-9x^9+x^{10})/(1-x)^5$
123	1	$\{4231, 4312, 1432, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+15x^5+10x^6-24x^7-14x^8+14x^9+3x^{10})/(1-x)^3$
124	1	$\{4231, 4312, 1342, 1324\}$	$(1-7x+21x^2-33x^3+31x^4-17x^5+x^6-2x^7)/((1-2x)(1-x)^6)$
125	1	$\{4231, 4312, 1342, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5-x^6-4x^7+x^8)/(1-x)^5$
126	1	$\{4231, 4312, 1324, 1243\}$	$(1-5x+10x^2-8x^3+5x^4-x^5-6x^6)/((1-2x)(1-x)^4)$
127	1	$\{4231, 4312, 1324, 1234\}$	$(1-5x+11x^2-11x^3+9x^4-x^5-4x^6-7x^7+14x^8-7x^9+x^{10})/(1-x)^6$
128	1	$\{4231, 4312, 4123, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+4x^5+x^6-x^7)/(1-x)^6$
129	1	$\{4231, 4312, 1423, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+2x^5-2x^6-5x^7+4x^8-x^9)/(1-x)^6$
130	1	$\{4231, 4312, 1243, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5-4x^6-5x^7+5x^8-x^9)/(1-x)^5$
131	1	$*\{4231, 3412, 3142, 1324\}$	$(1-6x+14x^2-14x^3+7x^4-2x^5+x^6)/((1-2x)^2(1-x)^3)$
132	1	$\{4231, 3412, 3142, 1234\}$	
	2	$\{2143, 3412, 3142, 1234\}$	
	3	$\{2143, 3412, 1243, 1234\}$	
	4	$\{2134, 4312, 3142, 1432\}$	$(1-5x+11x^2-11x^3+9x^4-x^5)/(1-x)^6$
133	1	$*\{4231, 3412, 4132, 1324\}$	$(1-7x+20x^2-28x^3+21x^4-9x^5-x^6+3x^7-x^8)/((1-2x)^2(1-x)^4)$
134	1	$\{4231, 3412, 4132, 1234\}$	
	2	$\{4312, 3412, 1324, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5+x^6-x^7)/(1-x)^5$
135	1	$*\{4231, 3412, 1432, 1324\}$	
	2	$\{2143, 3412, 1432, 4123\}$	$(1-4x+6x^2-2x^3+3x^4-2x^6)/((1-2x)(1-x)^3)$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
136	1	$\{4231, 3412, 1432, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+11x^5-9x^7)/(1-x)^3$
137	1	$*\{4231, 3412, 1324, 1423\}$	$(1-6x+14x^2-14x^3+7x^4-2x^5-x^6)/((1-2x)^2(1-x)^3)$
138	1	$*\{4231, 3412, 1324, 1243\}$	$(1-6x+15x^2-18x^3+13x^4-8x^5-5x^6+6x^7)/((1-2x)(1-x)^5)$
139	1	$\{4231, 3412, 1324, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+2x^5-3x^6)/(1-x)^5$
140	1	$\{4231, 3412, 4123, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-7x^5+2x^6)/(1-x)^7$
141	1	$\{4231, 3412, 1423, 1234\}$	
	2	$\{2314, 4312, 1342, 1324\}$	
	3	$\{2134, 4312, 3124, 1342\}$	$(1-5x+11x^2-11x^3+9x^4)/(1-x)^6$
142	1	$\{4231, 3142, 4132, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-9x^5+3x^6)/(1-x)^7$
143	1	$\{4231, 3142, 1432, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+1x^5-2x^6+9x^7+4x^8-4x^9+3x^{10})/(1-x)^5$
144	1	$*\{4231, 3142, 1342, 1324\}$	
	2	$*\{4312, 3142, 3124, 1324\}$	$(1-7x+19x^2-23x^3+12x^4-x^5)/((1-2x)^3(1-x)^2)$
145	1	$\{4231, 3142, 1342, 1234\}$	$(1-8x+29x^2-60x^3+80x^4-69x^5+38x^6-11x^7+2x^8)/(1-x)^9$
146	1	$*\{4231, 3142, 1324, 4123\}$	$(1-6x+14x^2-14x^3+7x^4-2x^5+2x^6)/((1-2x)^2(1-x)^3)$
147	1	$*\{4231, 3142, 1324, 1423\}$	$(1-7x+19x^2-23x^3+12x^4-2x^5+x^6)/((1-2x)^3(1-x)^2)$
148	1	$*\{4231, 3142, 1324, 1243\}$	$(1-10x+44x^2-110x^3+172x^4-177x^5+123x^6-59x^7+20x^8-3x^9)/((1-2x)^2(1-x)^7)$
149	1	$\{4231, 3142, 1324, 1234\}$	
	2	$\{2143, 2134, 3412, 1243\}$	$(1-6x+16x^2-22x^3+20x^4-10x^5+5x^6)/(1-x)^7$
150	1	$\{4231, 3142, 4123, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-8x^5+2x^6)/(1-x)^7$
151	1	$\{4231, 3142, 1423, 1234\}$	$(1-8x+29x^2-60x^3+80x^4-70x^5+41x^6-13x^7+2x^8)/(1-x)^9$
152	1	$\{4231, 3142, 1243, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-10x^5+5x^6+x^7)/(1-x)^7$
153	1	$\{4231, 3124, 4132, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+2x^5+5x^6+x^7)/(1-x)^6$
154	1	$\{4231, 3124, 1432, 1324\}$	$(1-8x+27x^2-48x^3+49x^4-30x^5+9x^6+x^7-2x^8)/(1-2x)^2(1-x)^5$
155	1	$\{4231, 3124, 1432, 1234\}$	$(1-3x+4x^2+5x^4+7x^5+x^6+9x^7+8x^8+2x^9)/(1-x)^4$
156	1	$\{4231, 3124, 1342, 1324\}$	
	2	$*\{4231, 1342, 1324, 1423\}$	
	3	$*\{3412, 3124, 1324, 1423\}$	
	4	$*\{3412, 1324, 4123, 1423\}$	$(1-7x+20x^2-28x^3+21x^4-6x^5)/((1-2x)^2(1-x)^4)$, see [10]
157	1	$\{4231, 3124, 1342, 1234\}$	$(1-9x+37x^2-89x^3+140x^4-149x^5+109x^6-52x^7+15x^8-2x^9)/(1-x)^{10}$
158	1	$*\{4231, 3124, 1324, 1423\}$	$(1-8x+26x^2-43x^3+39x^4-19x^5+6x^6-x^7)/((1-x)^4(1-2x)(1-3x+x^2))$
159	1	$\{4231, 3124, 1324, 1243\}$	$(1-11x+54x^2-154x^3+282x^4-346x^5+286x^6-159x^7+62x^8-16x^9+2x^{10})/((1-2x)^2(1-x)^8)$
160	1	$\{4231, 3124, 1423, 1234\}$	$(1-8x+29x^2-60x^3+80x^4-69x^5+43x^6-19x^7+5x^8-x^9)/(1-x)^9$
161	1	$\{4231, 3124, 1243, 1234\}$	$(1-7x+22x^2-38x^3+42x^4-27x^5+14x^6-6x^7+x^8)/(1-x)^8$
162	1	$\{4231, 4132, 1432, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5+2x^6-3x^7+2x^8)/(1-x)^5$
163	1	$*\{4231, 4132, 1342, 1324\}$	
	2	$*\{4312, 3124, 4132, 1324\}$	
	3	$\{3412, 3142, 3124, 1243\}$	
	4	$\{3412, 3142, 1342, 1234\}$	$(1-8x+26x^2-42x^3+35x^4-13x^5)/((1-2x)^3(1-x)^3)$, [10]
164	1	$\{4231, 4132, 1342, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-8x^5+2x^7)/(1-x)^7$
165	1	$*\{4231, 4132, 1324, 1423\}$	
	2	$\{4312, 4123, 1423, 1243\}$	$(1-x)(1-6x+12x^2-6x^3-2x^4)/(1-2x)^4$
166	1	$*\{4231, 4132, 1324, 1243\}$	$(1-10x+42x^2-95x^3+125x^4-98x^5+42x^6-3x^7-4x^8+x^9)/((1-x)^4(1-2x)^2(1-3x+x^2))$
167	1	$\{4231, 4132, 1324, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+1x^5+3x^6)/(1-x)^6$
168	1	$\{4231, 4132, 4123, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+4x^5+3x^6-2x^7)/(1-x)^6$
169	1	$\{4231, 4132, 1423, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-7x^5+1x^6+2x^7)/(1-x)^7$
170	1	$\{4231, 4132, 1243, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+1x^5+2x^6+3x^7)/(1-x)^6$
171	1	$\{4231, 1432, 1324, 4123\}$	$(1-6x+14x^2-14x^3+7x^4-4x^5-2x^6)/((1-2x)^2(1-x)^3)$
172	1	$*\{4231, 1432, 1324, 1423\}$	$(1-7x+19x^2-23x^3+12x^4-2x^5-2x^6)/((1-x)^2(1-2x)^3)$
173	1	$*\{4231, 1432, 1324, 1243\}$	$(1-11x+52x^2-137x^3+220x^4-224x^5+144x^6-48x^7-3x^8+6x^9-x^{10})/((1-x)^5(1-2x)^2(1-3x+x^2))$
174	1	$\{4231, 1432, 1324, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5+x^6-2x^8+x^9)/(1-x)^5$
175	1	$\{4231, 1432, 4123, 1234\}$	$(1-3x+4x^2+5x^4+8x^5+3x^6-7x^7)/(1-x)^4$
176	1	$\{4231, 1432, 1423, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5+2x^6+2x^7+7x^8+x^9)/(1-x)^5$
177	1	$\{4231, 1432, 1243, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5+x^7+2x^8+2x^9)/(1-x)^5$
178	1	$\{4231, 1342, 1324, 4123\}$	$(1-x+x^2)(1-5x+9x^2-4x^3)/((1-2x)(1-x)^5)$
179	1	$\{4231, 1342, 4123, 1234\}$	$(1-7x+22x^2-38x^3+42x^4-27x^5+10x^6-2x^7)/(1-x)^8$
180	1	$\{4231, 1342, 1423, 1234\}$	$(1-9x+37x^2-89x^3+140x^4-147x^5+103x^6-45x^7+11x^8-x^9)/(1-x)^{10}$
181	1	$*\{4231, 1324, 4123, 1423\}$	
	2	$\{4213, 4132, 1432, 1324\}$	$(1-7x+19x^2-24x^3+15x^4-3x^5)/((1-2x)(1-x)^3(1-3x+x^2))$
182	1	$\{4231, 1324, 4123, 1243\}$	$(1-10x+44x^2-110x^3+172x^4-176x^5+116x^6-41x^7-2x^8+11x^9-4x^{10})/((1-2x)^2(1-x)^7)$
183	1	$\{4231, 1324, 4123, 1234\}$	$(1-7x+22x^2-38x^3+42x^4-27x^5+9x^6-2x^7+2x^8-x^9)/(1-x)^8$
184	1	$*\{4231, 1324, 1423, 1243\}$	$(1-12x+64x^2-198x^3+392x^4-518x^5+459x^6-264x^7+93x^8-15x^9-9x^{10}+7x^{11}-x^{12})/((1-x)^7(1-2x)^3)$
185	1	$\{4231, 1324, 1423, 1234\}$	$(1-8x+29x^2-60x^3+80x^4-68x^5+39x^6-15x^7+3x^8)/(1-x)^9$
186	1	$\{4231, 1324, 1243, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+2x^5+7x^6+x^7-6x^8)/(1-x)^6$
187	1	$\{4231, 4123, 1423, 1234\}$	$(1-8x+29x^2-60x^3+80x^4-66x^5+36x^6-13x^7+2x^8)/(1-x)^9$
188	1	$\{4231, 1423, 1243, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-6x^5+5x^6+x^7)/(1-x)^7$
189	1	$\{2431, 2341, 4213, 4123\}$	$(1-x)^2(1-x-x^2)/(1-4x+4x^2-x^3-4x^4)$
190	1	$\{2431, 2341, 4312, 1324\}$	$(1-5x+11x^2-11x^3+9x^4-x^5+7x^7-2x^8+x^{10})/(1-x)^6$
191	1	$\{2431, 2341, 4312, 4123\}$	$(1-x)^3(1-2x)/(1-6x+13x^2-14x^3+6x^4+2x^5+x^6-2x^7)$
192	1	$\{2431, 2341, 4312, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5-5x^6-7x^7+3x^8+x^9)/(1-x)^5$
193	1	$\{2431, 2341, 4132, 4123\}$	
	2	$\{2314, 2143, 3124, 1432\}$	$(1-x)^3(1-2x)/(1-6x+13x^2-14x^3+6x^4+x^5+2x^6)$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
194	1	$\{2431, 2314, 4213, 1423\}$	$(1-5x+10x^2-8x^3+5x^4-2x^5)/((1-2x)(1-x)^4)$
195	1	$\{2431, 2314, 4312, 1324\}$	$(1-6x+16x^2-22x^3+20x^4-9x^5+x^6+3x^7-x^8)/(1-x)^7$
196	1	$\{2431, 2314, 4312, 1234\}$	$(1-3x+4x^2+5x^4+8x^5-x^6-x^8+x^9)/(1-x)^4$
197	1	$\{2431, 4213, 2413, 1324\}$	
	2	$\{4213, 2413, 1342, 1324\}$	
	3	$\{4213, 3142, 1342, 1324\}$	
	4	$\{2413, 4312, 1342, 1423\}$	
	5	$*\{2413, 3412, 3142, 1324\}$	
	6	$*\{2413, 3412, 3142, 1243\}$	
	7	$*\{2413, 3124, 4132, 1324\}$	
	8	$\{3142, 3124, 4132, 1432\}$	
	9	$\{3142, 3124, 4132, 1342\}$	
	10	$\{3142, 3124, 4132, 1243\}$	
	11	$\{3142, 3124, 1342, 4123\}$	
	12	$\{3142, 3124, 4123, 1234\}$	
	13	$\{3142, 4132, 4123, 1243\}$	$(1-6x+12x^2-8x^3+2x^4)/((1-x)(1-3x+x^2)^2)$
198	1	$\{2431, 4213, 2413, 1234\}$	$(1-5x+8x^2-5x^4-3x^5-9x^6+7x^7+14x^8+8x^9-3x^10-9x^11-5x^12-x^{13})/((1-x-x^2-x^3)(1-x-x^2)^2(1-x)^3)$
199	1	$\{2431, 4213, 2143, 1324\}$	
	2	$\{4312, 3412, 3124, 1342\}$	$(1-9x+33x^2-63x^3+68x^4-45x^5+22x^6-7x^7+x^8)/((1-3x+x^2)^2(1-x)^4)$
200	1	$\{2431, 4213, 2143, 1234\}$	$(1-4x+4x^2+4x^3-1x^4-7x^5-22x^6+29x^7+30x^8-36x^9-33x^{10}+15x^{11}+30x^{12}+5x^{13}-10x^{14}-4x^{15})/((1-x-x^2-x^3)(1-x)^2(1-x-x^2)^2)$
201	1	$\{2431, 4213, 2134, 1423\}$	$(1-7x+20x^2-28x^3+21x^4-11x^5+6x^7)/((1-2x)^2(1-x)^4)$
202	1	$\{2431, 4213, 2134, 1243\}$	$(1-7x+19x^2-23x^3+12x^4-8x^5+4x^6+18x^7-8x^8-16x^9)/((1-x)^2(1-2x)^3)$
203	1	$\{2431, 4213, 4312, 1324\}$	$(1-9x+36x^2-82x^3+118x^4-111x^5+67x^6-24x^7+3x^8)/((1-2x)(1-x)^8)$
204	1	$\{2431, 4213, 4312, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+15x^5+2x^6-26x^7+4x^8+4x^9)/(1-x)^3$
205	1	$\{2431, 4213, 3412, 1324\}$	$(1-8x+27x^2-48x^3+49x^4-31x^5+11x^6+4x^7-8x^8+4x^9)/((1-2x)^2(1-x)^5)$
206	1	$\{2431, 4213, 3412, 1234$	$(1-2x+2x^2+2x^3+7x^4+13x^5+5x^6-x^7)/(1-x)^3$
207	1	$\{2431, 4213, 3142, 1324\}$	
	2	$\{4213, 2413, 3124, 1342\}$	
	3	$\{4213, 3142, 3124, 1342\}$	
	4	$*\{2143, 3124, 4123, 1423\}$	
	5	$\{3142, 1342, 1324, 4123\}$	
	6	$\{3124, 4132, 1432, 1423\}$	
	7	$\{1432, 4123, 1423, 1234\}$	$(1-5x+7x^2-x^3+x^4)/(1-3x+x^2)^2$
208	1	$\{2431, 4213, 3142, 1234\}$	$(1-5x+8x^2-5x^4-4x^5-10x^6+7x^7+26x^8+12x^9-14x^{10}-19x^{11}-5x^{12}+4x^{13}+2x^{14})/((1-x-x^2-x^3)(1-x-x^2)^2(1-x)^3)$
209	1	$\{2431, 4213, 3124, 1342\}$	$(1-5x+8x^2-2x^3-6x^5)/(1-2x)^3$
210	1	$\{2431, 4213, 4132, 1324\}$	$(1-8x+26x^2-43x^3+39x^4-20x^5+5x^6-x^7)/((1-2x)(1-3x+x^2)(1-x)^4)$
211	1	$\{2431, 4213, 4132, 1234\}$	$(1-4x+5x^2+x^3+x^4-2x^5-23x^6-21x^7+69x^8+17x^9-29x^{10}-30x^{11}+4x^{12}+13x^{13})/((1-x-x^2)(1-x-x^2-x^3)(1-x)^3)$
212	1	$\{2431, 4213, 1432, 1324\}$	
	2	$*\{3412, 3124, 1342, 4123\}$	
	3	$*\{3412, 3124, 1342, 1423\}$	$(1-6x+14x^2-15x^3+9x^4-2x^5)/((1-3x+x^2)(1-x)^4)$, [10]
213	1	$\{2431, 4213, 1432, 1234\}$	$(1-2x+3x^3+7x^4+8x^5-16x^6-49x^7-6x^8+35x^9+40x^{10}+15x^{11})/((1-x)(1-x-x^2)(1-x-x^2-x^3))$
214	1	$\{2431, 4213, 1342, 1324\}$	
	2	$\{4213, 3124, 1342, 4123\}$	$(1-5x+8x^2-3x^3+x^4-x^5)/((1-3x+x^2)(1-2x)(1-x))$
215	1	$\{2431, 4213, 1342, 1234\}$	$(1-4x+5x^2+x^3+x^4-3x^5-15x^6+x^7+7x^8+10x^9+3x^{10})/((1-x-x^2)(1-x-x^2-x^3)(1-x)^3)$
216	1	$\{2431, 4213, 1324, 4123\}$	$(1-5x+8x^2-x^3-4x^4-2x^6+x^7+x^8)/((1-x-x^2)(1-2x-x^2)(1-x)^3)$
217	1	$\{2431, 4213, 1324, 1423\}$	
	2	$\{2413, 4132, 1243, 1234\}$	
	3	$*\{2143, 3412, 1342, 1423\}$	$(1-5x+9x^2-6x^3+3x^4)/((1-3x+x^2)(1-x)^3)$, [10]
218	1	$\{2431, 4213, 1324, 1243\}$	$(1-9x+34x^2-69x^3+82x^4-60x^5+24x^6+2x^7-5x^8+x^9)/((1-3x+x^2)(1-2x)(1-x)^5)$
219	1	$\{2431, 4213, 1324, 1234\}$	$(1-4x+4x^2+4x^3-x^4-3x^5-15x^6-14x^7+15x^8+34x^9+17x^{10}-7x^{11}-12x^{12}-4x^{13})/((1-x-x^2-x^3)(1-x)^2(1-x-x^2)^2)$
220	1	$\{2431, 4213, 4123, 1234\}$	$(1-4x+5x^2+2x^3-2x^4+2x^5-14x^6-13x^7+16x^8+15x^9-x^{10}-2x^{11})/((1-x-x^2)^2(1-x)^3)$
221	1	$\{2431, 4213, 1423, 1234\}$	$(1-4x+5x^2+x^3+x^4-2x^5-17x^6-4x^7+12x^8+15x^9+5x^{10}-3x^{11}-2x^{12})/((1-x-x^2)(1-x-x^2-x^3)(1-x)^3)$
222	1	$\{2431, 4213, 1243, 1234\}$	$(1-4x+4x^2+4x^3-x^4-5x^5-20x^6-2x^7+37x^8+20x^9-17x^{10}-22x^{11}-2x^{12}+8x^{13}+3x^{14})/((1-x-x^2-x^3)(1-x)^2(1-x-x^2)^2)$
223	1	$\{2431, 2413, 4312, 1324\}$	
	2	$\{4312, 3142, 3124, 1243\}$	
	3	$\{3412, 3142, 4123, 1243\}$	
	4	$\{3412, 3142, 4123, 1234\}$	
	5	$*\{3412, 3124, 1342, 1243\}$	
	6	$*\{3412, 3124, 1342, 1234\}$	
	7	$*\{3412, 1342, 1324, 4123\}$	$(1-7x+20x^2-28x^3+21x^4-8x^5)/((1-2x)^2(1-x)^4)$
224	1	$\{2431, 2413, 4312, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+15x^5+12x^6+5x^7)/(1-x)^3$
225	1	$\{2431, 2143, 4312, 1324\}$	$(1-9x+35x^2-75x^3+97x^4-81x^5+43x^6-9x^7-x^8)/((1-2x)^2(1-x)^6)$
226	1	$\{2431, 2143, 4312, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+12x^5-7x^6-15x^7-5x^8+11x^9)/(1-x)^3$
227	1	$\dagger\{2431, 2143, 4132, 1324\}$	
	2	$\dagger\{3412, 3124, 4132, 1423\}$	$C(x)+x^3C^2(x)/(1-x)^3+x^4/((1-x)^3(1-2x))$, [9]
228	1	$\{2431, 2143, 4132, 1234\}$	$(1-8x+25x^2-37x^3+26x^4-15x^5+3x^6+56x^7-70x^8-17x^9+45x^{10}-12x^{11})/((1-3x+x^2)(1-2x)^2(1-x)^2)$
229	1	$\{2431, 2134, 4312, 1342\}$	$(1-4x+7x^2-4x^3+5x^4+2x^5-x^6-2x^7)/(1-x)^5$
230	1	$\{2431, 2134, 4312, 1324\}$	$(1-5x+11x^2-11x^3+9x^4-x^5-5x^6+2x^7)/(1-x)^6$
231	1	$\{2431, 2134, 4312, 1423\}$	
	2	$\{2413, 4312, 1342, 1234\}$	
	3	$\{3412, 4132, 1243, 1234\}$	$(1-5x+11x^2-11x^3+9x^4-x^5-2x^6+x^7)/(1-x)^6$
232	1	$\{2431, 2134, 4312, 1243\}$	$(1-3x+4x^2+5x^4+6x^5-3x^6-x^7)/(1-x)^4$
233	1	$\{2431, 2134, 4312, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+14x^5+6x^6-5x^7-8x^8)/(1-x)^3$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
234	1	$\{2431, 2134, 4132, 1324\}$	$(1-11x+51x^2-128x^3+187x^4-163x^5+86x^6-17x^7-24x^8+22x^9-5x^{10})/((1-3x+x^2)(1-2x)^3(1-x)^3)$
235	1	$\{2431, 2134, 4132, 1423\}$	$(1-12x+62x^2-179x^3+315x^4-352x^5+263x^6-138x^7+31x^8+26x^9-18x^{10}+3x^{11})/((1-3x+x^2)(1-2x)^3(1-x)^4)$
236	1	$\{2431, 2134, 4132, 1243\}$	$(1-9x+33x^2-62x^3+63x^4-40x^5+24x^6+2x^7-30x^8+21x^9-4x^{10})/((1-3x+x^2)(1-2x)^2(1-x)^3)$
237	1	$\{2431, 2134, 4132, 1234\}$	$(1-9x+31x^2-44x^3+x^4+55x^5-32x^6+32x^7-77x^8-101x^9+261x^{10}+8x^{11}-197x^{12}+22x^{13}+58x^{14}-5x^{15}-6x^{16})/((1-x-x^2)^3(1-2x-x^2)(1-2x)(1-x)^3)$
238	1	$\{2431, 4312, 3412, 1324\}$	$(1-6x+14x^2-14x^3+7x^4-3x^5-2x^6+3x^7-2x^8)/((1-2x)^2(1-x)^3)$
239	1	$\{2431, 4312, 3412, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-10x^6+x^7+2x^8)/(1-x)^5$
240	1	$\{2431, 4312, 3142, 1324\}$	$(1-8x+27x^2-48x^3+49x^4-29x^5+10x^6-x^7)/((1-2x)^2(1-x)^5)$
241	1	$\{2431, 4312, 3142, 1234\}$	$(1-3x+4x^2+5x^4+8x^5+2x^6-3x^7-4x^8)/(1-x)^4$
242	1	$\{2431, 4312, 3124, 1342\}$	$(1-8x+26x^2-42x^3+35x^4-19x^5+13x^6-6x^7+x^8)/((1-2x)^3(1-x)^3)$
243	1	$\{2431, 4312, 3124, 1324\}$	$(1-8x+27x^2-48x^3+49x^4-30x^5+11x^6-3x^7)/((1-2x)^2(1-x)^5)$
244	1	$\{2431, 4312, 3124, 1243\}$	
	2	$\{4213, 2143, 3412, 1342\}$	$(1-6x+14x^2-14x^3+7x^4-4x^5)/((1-2x)^2(1-x)^3)$
245	1	$\{2431, 4312, 3124, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-6x^6+2x^7-2x^8+2x^9)/(1-x)^5$
246	1	$\{2431, 4312, 4132, 1324\}$	$(1-9x+34x^2-68x^3+77x^4-49x^5+17x^6-5x^7)/((1-2x)^3(1-x)^4)$
247	1	$\{2431, 4312, 4132, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+16x^5+13x^6-9x^7)/(1-x)^3$
248	1	$\{2431, 4312, 1432, 1324\}$	$(1-9x+34x^2-68x^3+77x^4-49x^5+16x^6-3x^7)/((1-2x)^3(1-x)^4)$
249	1	$\{2431, 4312, 1432, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+15x^5+9x^6-14x^7-11x^8+9x^9+x^10)/(1-x)^3$
250	1	$\{2431, 4312, 1342, 1324\}$	$(1-8x+27x^2-48x^3+49x^4-30x^5+12x^6-6x^7+2x^8)/((1-2x)^2(1-x)^5)$
251	1	$\{2431, 4312, 1342, 1234\}$	$(1-3x+4x^2+5x^4+8x^5+3x^6-3x^7-3x^8)/(1-x)^4$
252	1	$\{2431, 4312, 1324, 4123\}$	$(1-5x+9x^2-5x^3+2x^4-2x^5-4x^6)/((1-2x)^2(1-x)^2)$
253	1	$\{2431, 4312, 1324, 1423\}$	$(1-9x+34x^2-68x^3+77x^4-49x^5+14x^6+x^7)/((1-2x)^3(1-x)^4)$
254	1	$\{2431, 4312, 1324, 1243\}$	$(1-8x+27x^2-48x^3+49x^4-30x^5+6x^6+6x^7-2x^8)/((1-2x)^2(1-x)^5)$
255	1	$\{2431, 4312, 1324, 1234\}$	$(1-3x+4x^2+5x^4+9x^5+3x^6-6x^7-x^8+x^9)/(1-x)^4$
256	1	$\{2431, 4312, 4123, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5-6x^6-5x^7+5x^8-x^9)/(1-x)^5$
257	1	$\{2431, 4312, 1423, 1234\}$	$(1-3x+4x^2+5x^4+10x^5+4x^6-3x^7-6x^8)/(1-x)^4$
258	1	$\{2431, 4312, 1243, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5-10x^6-3x^7+6x^8+2x^9-2x^{10})/(1-x)^5$
259	1	$*\{2431, 3412, 4132, 1324\}$	$(1-4x+5x^2-x^3+2x^4-2x^6)/((1-3x+x^2)(1-x)^2)$
260	1	$\{2431, 3412, 4132, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+x^5-11x^6+2x^7+8x^8-4x^9)/(1-x)^5$
261	1	$\dagger\{2431, 3142, 4132, 1324\}$	
	2	$\dagger\{2143, 4132, 1324, 1423\}$	$C(x)+x^3C^3(x)/(1-x)^2+x^4C^2(x)/((1-x)^2(1-2x))$, [9]
262	1	$\{2431, 3142, 4132, 1234\}$	$(1-9x+33x^2-62x^3+63x^4-39x^5+14x^6+24x^7-26x^8-28x^9+34x^{10}-8x^{11})/((1-3x+x^2)(1-2x)^2(1-x)^3)$
263	1	$\{2431, 3124, 4132, 1342\}$	$(1-9x+33x^2-62x^3+63x^4-39x^5+22x^6-10x^7+2x^8)/((1-3x+x^2)(1-2x)^2(1-x)^3)$
264	1	$\{2431, 3124, 4132, 1324\}$	$(1-8x+25x^2-37x^3+26x^4-10x^5+x^6)/((1-3x+x^2)(1-2x)^2(1-x)^2)$
265	1	$\{2431, 3124, 4132, 1423\}$	$(1-7x+18x^2-19x^3+7x^4-4x^5+2x^6)/((1-3x+x^2)(1-2x)^2(1-x))$
266	1	$\{2431, 3124, 4132, 1243\}$	$(1-9x+33x^2-62x^3+63x^4-37x^5+15x^6-3x^7)/((1-3x+x^2)(1-2x)^2(1-x)^3)$
267	1	$\{2431, 3124, 4132, 1234\}$	$(1-8x+27x^2-49x^3+54x^4-43x^5+14x^6+28x^7-31x^8+10x^9+7x^{10}-7x^{11}+2x^{12})/((1-3x+2x^2-x^3)(1-2x)(1-x)^4)$
268	1	$\dagger\{2431, 4132, 1432, 1324\}$	
	2	$\dagger\{2413, 3412, 3142, 1423\}$	
	3	$\dagger\{2413, 3142, 3124, 1423\}$	
	4	$\dagger\{2413, 4132, 1432, 1342\}$	
	5	$\dagger\{2413, 4132, 1342, 1423\}$	
	6	$\dagger\{2143, 1432, 1324, 1423\}$	
	7	$\dagger\{2143, 1324, 1423, 1243\}$	
	8	$\dagger\{2134, 1324, 1423, 1243\}$	
	9	$\dagger\{2134, 1423, 1243, 1234\}$	
	10	$\dagger\{3142, 4132, 1432, 1423\}$	
	11	$\dagger\{3142, 4132, 1342, 1423\}$	
	12	$\dagger\{3142, 4132, 4123, 1423\}$	
	13	$\dagger\{3142, 1432, 1342, 1324\}$	
	14	$\dagger\{3142, 1342, 1324, 1423\}$	
	15	$\dagger\{3124, 1342, 1324, 1243\}$	
	16	$\dagger\{3124, 1324, 1423, 1243\}$	
	17	$\dagger\{3124, 1324, 1423, 1234\}$	
	18	$\dagger\{4132, 1432, 1342, 1243\}$	
	19	$\dagger\{1342, 4123, 1423, 1243\}$	$C(x)/(1-x^3C^5(x))$, [3, 6]
269	1	$\{2431, 4132, 1432, 1234\}$	
	2	$\{2341, 2314, 4312, 1342\}$	$(1-13x+74x^2-241x^3+494x^4-665x^5+598x^6-346x^7+87x^8+45x^9-44x^{10}+12x^{11}-x^{12})/((1-3x+x^2)(1-2x)^3(1-x)^5)$
270	1	$\{2431, 4132, 1324, 4123\}$	$(1-6x+12x^2-6x^3-4x^4-x^6+3x^7+2x^8)/((1-x-x^2)(1-3x+x^2)(1-2x)(1-x))$
271	1	$\dagger\{1342, 2314, 4231, 3241\}$	$C(x)+x^3C^5(x)+x^4C^2(x)/(1-x)^2$
272	1	$\dagger\{2431, 4132, 1324, 1243\}$	$C(x)+x^3C^2(x)/(1-3x+x^2)+x^4/((1-x)^3(1-2x))$
273	1	$\{2431, 4132, 1324, 1234\}$	$(1-14x+86x^2-302x^3+661x^4-918x^5+769x^6-278x^7-172x^8+315x^9-146x^{10}-112x^{11}+172x^{12}-34x^{13}-65x^{14}+44x^{15}-8x^{16})/((1-x-x^2)(1-3x+x^2)(1-2x)^3(1-x)^5)$
274	1	$\{2431, 4132, 4123, 1234\}$	$(1-7x+20x^2-28x^3+21x^4-10x^5-11x^6+21x^7+18x^8-34x^9+12x^{10})/((1-2x)^2(1-x)^4)$
275	1	$\{2431, 4132, 1423, 1234\}$	$(1-12x+62x^2-179x^3+315x^4-351x^5+251x^6-79x^7-121x^8+243x^9-184x^{10}+63x^{11}-8x^{12})/((1-3x+x^2)(1-2x)^3(1-x)^4)$
276	1	$\{2431, 4132, 1243, 1234\}$	$(1-11x+52x^2-137x^3+220x^4-225x^5+141x^6-4x^7-128x^8+154x^9-65x^{10}-16x^{11}+20x^{12}-4x^{13})/((1-3x+x^2)(1-2x)^2(1-x)^5)$
277	1	$\{2341, 2314, 4132, 1432\}$	
	2	$\{2143, 4312, 3412, 1342\}$	$(1-4x+5x^2+2x^4)/((1-2x)^2(1-x))$
278	1	$\{2341, 2314, 4132, 1342\}$	$(1-8x+25x^2-37x^3+26x^4-9x^5-2x^6+x^7)/((1-3x+x^2)(1-2x)^2(1-x)^2)$
279	1	$\{2341, 4213, 2134, 1342\}$	$(1-6x+14x^2-14x^3+7x^4-3x^5)/((1-2x)^2(1-x)^3)$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
280	1	$\{2341, 4213, 3124, 1432\}$	$(1-3x+3x^2+x^3+5x^4+x^5-5x^6+5x^7+8x^8+4x^9)/((1-x-x^2-x^3)(1-x)^3)$
281	1	$\{2341, 4213, 3124, 1342\}$	$(1-6x+14x^2-14x^3+7x^4-4x^5+x^6)/((1-2x)^2(1-x)^3)$
282	1	$\{2341, 4213, 4132, 1324\}$	$(1-6x+14x^2-12x^3-x^4+8x^5-10x^6+8x^7+5x^8-4x^9-x^{10})/((1-x-x^2)^2(1-x)^5)$
283	1	$\{2341, 4213, 4132, 4123\}$	$(1-x-x^2)(1-x)^2/(1-4x+4x^2-x^3-4x^4-2x^5-x^6)$
284	1	$\{2341, 4213, 4132, 1234\}$	$(1-3x+3x^2+2x^3+3x^4+6x^5-4x^6-5x^7-2x^8)/((1-x-x^2)(1-x)^3)$
285	1	$\{2341, 4213, 1432, 1324\}$	$(1-5x+9x^2-4x^3-4x^5-8x^6+7x^7+6x^8-2x^9-2x^{10})/((1-x-x^2)(1-x-x^2-x^3)(1-x)^4)$
286	1	$\{2341, 4213, 1432, 4123\}$	$(1-4x+6x^2-5x^3+10x^4-7x^5-5x^7+x^8)(1+x)/((1-2x-x^2+x^3)(1+x^2)(1-x-x^2-x^3)(1-x))$
287	1	$\{2341, 4213, 1432, 1234\}$	$(1-x+2x^3+9x^4+17x^5+5x^6-16x^7-14x^8-7x^9)/((1-x-x^2-x^3)(1-x))$
288	1	$\{2341, 4213, 1342, 1324\}$	$(1-6x+13x^2-9x^3-2x^4+4x^5-4x^6-x^7)/((1-x-x^2)(1-2x)^2(1-x)^2)$
289	1	$\{2341, 4213, 1342, 4123\}$	$(1-4x+5x^2-x^3+3x^4+2x^5)/((1-2x)(1-3x+2x^2-x^3))$
290	1	$\{2341, 4213, 1342, 1234\}$	$(1-6x+15x^2-18x^3+13x^4-5x^5-5x^6+6x^7-2x^8)/((1-2x)(1-x)^5)$
291	1	$\{2341, 2413, 3142, 4123\}$	$(1-x)^2(1-3x+2x^2-x^3)/(1-6x+13x^2-15x^3+9x^4-3x^5)$
292	1	$\{2341, 2413, 4132, 1324\}$	$(1-5x+8x^2-2x^3-2x^4-2x^6)/((1-x-x^2)(1-3x+x^2)(1-x)^2)$
293	1	$\{2341, 2413, 4132, 4123\}$	
	2	$\{2413, 2143, 3124, 1432\}$	
	3	$\{2413, 3142, 1324, 1234\}$	
	4	$\{2134, 3124, 1432, 1423\}$	
	5	$\{3142, 3124, 1432, 1243\}$	$(1-2x)(1-x)^2/((1-3x)(1-2x+2x^2))$
294	1	$\{2341, 2413, 4132, 1234\}$	$(1-6x+14x^2-14x^3+7x^4-4x^5-4x^6+4x^7)/((1-2x)^2(1-x)^3)$
295	1	$\{2341, 2143, 4312, 1324\}$	$(1-3x+4x^2+5x^4+4x^5-5x^6-3x^7+3x^8)/(1-x)^4$
296	1	$\{2341, 2143, 4312, 4123\}$	$(1-3x+4x^2+5x^4+5x^5)/(1-x)^4$
297	1	$\{2341, 2143, 4312, 1234\}$	$(1-x+x^2+3x^3+10x^4+21x^5+17x^6)/(1-x)^2$
298	1	$\{2341, 2143, 3412, 4123\}$	
	2	$\{2143, 2134, 3412, 1432\}$	
	3	$\{2134, 3412, 1432, 1324\}$	
	4	$\{3412, 1432, 1324, 1234\}$	
	5	$\{3412, 1432, 1243, 1234\}$	$(1-5x+11x^2-11x^3+9x^4-2x^5-x^6)/(1-x)^6$
299	1	$\{2341, 2143, 3142, 4123\}$	$(1-7x+21x^2-34x^3+35x^4-25x^5+11x^6-3x^7)/((1-x)^5(1-3x+2x^2-x^3))$
300	1	$\{2341, 2143, 4132, 1324\}$	$(1-5x+8x^2-2x^3-2x^4-3x^5-5x^6+x^7+x^8)/((1-x-x^2)(1-3x+x^2)(1-x)^2)$
301	1	$\{2341, 2143, 4132, 4123\}$	
	2	$\{2314, 4213, 3412, 1432\}$	
	3	$\{3412, 1432, 1324, 4123\}$	$(1-6x+15x^2-18x^3+13x^4-7x^5+x^6)/((1-2x)(1-x)^5)$
302	1	$\{2341, 2143, 4132, 1234$	$(1-5x+9x^2-5x^3+2x^4-5x^5-8x^6+13x^7-4x^8)/((1-2x)^2(1-x)^2)$
303	1	$\{2341, 2143, 1432, 4123\}$	$(1-4x+6x^2-4x^3+7x^4-8x^5-5x^6)(1+x)/((1-2x-x^2)(1-x)^2)$
304	1	$\{2341, 2143, 1324, 4123\}$	$(1-5x+8x^2-3x^3+x^4-7x^5-8x^6+4x^7)/((1-3x+x^2)(1-2x)(1-x))$
305	1	$\{2341, 2143, 4123, 1423\}$	
	2	$\{3412, 3124, 1432, 4123\}$	$(1-6x+14x^2-15x^3+9x^4-6x^5-x^6+x^7)/((1-3x+x^2)(1-x)^4)$
306	1	$\{2341, 2143, 4123, 1243\}$	$(1-8x+26x^2-43x^3+39x^4-23x^5+8x^6+4x^7-2x^8)/((1-3x+x^2)(1-2x)(1-x)^4)$
307	1	$\{2341, 2143, 4123, 1234\}$	$(1-5x+9x^2-6x^3+3x^4-4x^5-x^6+x^7)/((1-3x+x^2)(1-x)^3)$
308	1	$\{2341, 2134, 4312, 1432\}$	$(1-2x+2x^2+2x^3+7x^4+12x^5-4x^6-22x^7-4x^8+4x^9+8x^{10})/(1-x)^3$
309	1	$\{2341, 2134, 4312, 1342\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-5x^6-4x^7+3x^8)/(1-x)^5$
310	1	$\{2341, 2134, 4312, 1243\}$	$(1-4x+7x^2-4x^3+5x^4+x^5-18x^6+3x^7+21x^8-x^9-17x^{10}+7x^{11})/(1-x)^5$
311	1	$\{2341, 2134, 4132, 1432\}$	$(1-6x+14x^2-13x^3+3x^4-11x^6+19x^7+10x^8-22x^9+2x^{10}+4x^{11})/((1-x-x^2)(1-2x)(1-x)^4)$
312	1	$\{2341, 2134, 4132, 1342\}$	$(1-7x+20x^2-27x^3+16x^4-12x^6+11x^7+4x^8-5x^9)/((1-x-x^2)(1-2x)(1-x)^5)$
313	1	$\{2341, 2134, 4132, 1324\}$	$(1-7x+20x^2-27x^3+16x^4-13x^6+17x^7-7x^8+x^9)/((1-x-x^2)(1-2x)(1-x)^5)$
314	1	$\{2341, 2134, 4132, 4123\}$	$(1-7x+20x^2-27x^3+16x^4-13x^6+13x^7+2x^8-4x^9)/((1-x-x^2)(1-2x)(1-x)^5)$
315	1	$\{2341, 2134, 4132, 1423\}$	$(1-6x+14x^2-13x^3+3x^4+x^5-6x^6+7x^7+x^8)/((1-x-x^2)(1-2x)(1-x)^4)$
316	1	$\{2341, 2134, 4132, 1243\}$	$(1-5x+9x^2-4x^3-x^4-6x^6+6x^7-2x^9)/((1-x-x^2)(1-2x)(1-x)^3)$
317	1	$\{2341, 2134, 4132, 1234\}$	$(1-5x+9x^2-4x^3-x^4+2x^5-9x^6+2x^8)/((1-x-x^2)(1-2x)(1-x)^3)$
318	1	$\{2341, 2134, 1432, 4123\}$	$(1-5x+8x^2-3x^3+2x^4-10x^5-19x^6+26x^7+37x^8-5x^9-20x^{10}-14x^{11}+5x^{12}+x^{13})/((1-3x+x^2)(1-x-x^2-x^3)(1-x)^2)$
319	1	$\{2341, 2134, 4123, 1243\}$	$C(x)+x^3(1-2x-2x^2+3x^3+7x^4-13x^5+7x^6+5x^7-7x^8+2x^9)/((1-2x)(1-x-x^2)(1-x)^5)$
320	1	$\{2341, 4312, 3412, 1324\}$	$(1-6x+16x^2-22x^3+20x^4-10x^5+5x^7-2x^8-2x^9+x^{10})/(1-x)^7$
321	1	$\{2341, 4312, 3412, 4123\}$	$(1-x)^5(1-3x+2x^2-x^3)/(1-9x+34x^2-73x^3+99x^4-89x^5+55x^6-23x^7+5x^8-x^9)$
322	1	$\{2341, 4312, 3412, 1234\}$	
	2	$\{2341, 4312, 4123, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+x^5-x^6-2x^7+x^8)/(1-x)^6$
323	1	$\{2341, 4312, 3142, 1324\}$	$(1-6x+16x^2-22x^3+20x^4-11x^5+3x^6+5x^7-x^8-2x^9+x^{10})/(1-x)^7$
324	1	$\{2341, 4312, 3142, 4123\}$	$(1-x)^4/(1-5x+9x^2-9x^3+2x^4)$
325	1	$\{2341, 4312, 3142, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-3x^6-x^7)/(1-x)^5$
326	1	$\{2341, 4312, 3124, 1432\}$	$(1-4x+6x^2-2x^3+4x^4-3x^5-9x^6+2x^7+3x^8-x^9-x^{10})/((1-x-x^2-x^3)(1-x)^4)$
327	1	$\{2341, 4312, 3124, 1342\}$	$(1-8x+27x^2-48x^3+49x^4-32x^5+12x^6+2x^7-2x^8)/((1-2x)^2(1-x)^5)$
328	1	$\{2341, 4312, 3124, 1423\}$	$(1-8x+28x^2-55x^3+68x^4-57x^5+29x^6-4x^7-6x^8+2x^9+x^{10})/((1-4x+5x^2-3x^3)(1-x)^5)$
329	1	$\{2341, 4312, 3124, 1243\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-2x^6)/(1-x)^5$
330	1	$\{2341, 4312, 4132, 1324\}$	$(1-5x+11x^2-11x^3+9x^4-2x^5-4x^6+7x^7-x^8-3x^9)/(1-x)^6$
331	1	$\{2341, 4312, 4132, 4123\}$	$(1-x-x^2)(1-x)^3/(1-5x+8x^2-5x^3-3x^4+3x^5+2x^6+x^7)$
332	1	$\{2341, 4312, 4132, 1234\}$	$(1-3x+4x^2+5x^4+8x^5-2x^6-3x^7+2x^8)/(1-x)^4$
333	1	$\{2341, 4312, 1432, 1324\}$	$(1-4x+7x^2-4x^3+5x^4+2x^5-5x^6+4x^7+2x^8-4x^9+2x^{10})/(1-x)^5$
334	1	$\{2341, 4312, 1432, 4123\}$	$(1-3x+3x^2+4x^4+5x^5-6x^6+x^7)/((1-2x-x^2+x^3)(1+x^2)(1-x)^2)$
335	1	$\{2341, 4312, 1432, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+13x^5+2x^6-12x^7-2x^8)/(1-x)^3$
336	1	$\{2341, 4312, 1342, 1324\}$	$(1-5x+11x^2-11x^3+9x^4+x^7)/(1-x)^6$
337	1	$\{2341, 4312, 1342, 4123\}$	$(1-5x+10x^2-9x^3+7x^4-2x^5)/((1-3x+2x^2-x^3)(1-x)^3)$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
338	1	$\{2341, 4312, 1342, 1234\}$	
	2	$\{2143, 2134, 4312, 1432\}$	$(1-5x+11x^2-11x^3+9x^4-2x^6)/(1-x)^6$
339	1	$\{2341, 4312, 1324, 4123\}$	$(1-4x+7x^2-4x^3+5x^4+2x^5-4x^6+5x^7+2x^8)/(1-x)^5$
340	1	$\{2341, 4312, 1324, 1423\}$	$(1-5x+11x^2-11x^3+9x^4-x^5-2x^6+x^7+2x^8-x^9)/(1-x)^6$
341	1	$\{2341, 4312, 1324, 1243\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-8x^6-3x^7+7x^8-2x^9)/(1-x)^5$
342	1	$\{2341, 4312, 1324, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5-5x^6-2x^7+x^8)/(1-x)^5$
343	1	$\{2341, 4312, 4123, 1423\}$	$(1-5x+10x^2-9x^3+6x^4-x^6)/((1-x)^2(1-4x+5x^2-3x^3))$
344	1	$\{2341, 4312, 4123, 1243\}$	$(1-5x+11x^2-11x^3+9x^4-x^5-5x^6+x^7+x^8)/(1-x)^6$
345	1	$\{2341, 4312, 1423, 1234\}$	$(1-5x+11x^2-11x^3+9x^4-3x^6-2x^7+x^8)/(1-x)^6$
346	1	$\{2341, 4312, 1243, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5-6x^6-3x^7+2x^8)/(1-x)^5$
347	1	$\{2341, 3412, 3142, 4123\}$	$(1-2x)(1-x)^5/(1-8x+26x^2-46x^3+47x^4-27x^5+8x^6)$
348	1	$\{2341, 3412, 4132, 1324\}$	$(1-6x+15x^2-18x^3+13x^4-6x^5-3x^6+7x^7-4x^8)/((1-2x)(1-x)^5)$
349	1	$\{2341, 3412, 4132, 4123\}$	
	2	$\{2341, 3142, 4132, 4123\}$	$(1-2x)(1-x)^4/(1-7x+19x^2-27x^3+20x^4-7x^5+2x^6)$
350	1	$\{2341, 3412, 4132, 1234\}$	$(1-5x+11x^2-11x^3+9x^4-x^5-2x^6-x^7+x^8)/(1-x)^6$
351	1	$\{2341, 3412, 1432, 4123\}$	$(1-4x+6x^2-3x^3+5x^4-x^5)/((1-2x-x^3)(1-x)^3)$
352	1	$*\{2341, 3412, 1324, 4123\}$	$(1-8x+28x^2-54x^3+64x^4-49x^5+21x^6-5x^7+3x^8-2x^9)/((1-2x)(1-x)^7)$
353	1	$*\{2341, 3412, 4123, 1423\}$	$(1-6x+14x^2-15x^3+9x^4)/((1-x)(1-2x)(1-4x+5x^2-3x^3))$
354	1	$*\{2341, 3412, 4123, 1243\}$	
	2	$*\{3412, 1324, 4123, 1234\}$	
	3	$*\{3412, 1324, 1243, 1234\}$	$(1-7x+21x^2-33x^3+31x^4-16x^5+3x^6-2x^7)/((1-2x)(1-x)^6)$, [10]
355	1	$*\{2341, 3412, 4123, 1234\}$	$(1-8x+27x^2-48x^3+49x^4-27x^5+6x^6-4x^7)/((1-2x)^2(1-x)^5)$
356	1	$\{2341, 3142, 4132, 1324\}$	$(1-6x+13x^2-10x^3+3x^5-3x^6+x^7)/((1-3x+x^2)(1-x-x^2)(1-x)^3)$
357	1	$\{2341, 3142, 4132, 1234\}$	$(1-6x+14x^2-14x^3+7x^4-3x^5-4x^6)/((1-2x)^2(1-x)^3)$
358	1	$\{2341, 3142, 1432, 4123\}$	$(1-5x+9x^2-7x^3+7x^4-5x^5-6x^6+10x^7-7x^8+2x^9)/((1-3x+2x^2-x^3)(1-x-x^2-2x^3-2x^4)(1-x)^2)$
359	1	$\{2341, 3142, 1342, 4123\}$	$(1-8x+26x^2-44x^3+43x^4-24x^5+5x^6)/((1-3x+x^2)(1-x)^2(1-4x+5x^2-3x^3))$
360	1	$\{2341, 3142, 1324, 4123\}$	$(1-10x+42x^2-95x^3+125x^4-101x^5+56x^6-23x^7+4x^8)/((1-3x+x^2)(1-2x)^2(1-x)^4)$
361	1	$\{2341, 3142, 4123, 1423\}$	
	2	$\{4213, 2413, 3124, 1432\}$	
	3	$\{4213, 3142, 3124, 1432\}$	
	4	$\{4213, 3142, 1432, 1324\}$	$(1-6x+13x^2-12x^3+6x^4-x^5)/((1-3x+x^2)(1-4x+5x^2-3x^3))$
362	1	$\{2341, 3142, 4123, 1243\}$	
	2	$\{2314, 3412, 4132, 1342\}$	$(1-9x+34x^2-69x^3+82x^4-61x^5+28x^6-5x^7)/((1-3x+x^2)(1-2x)(1-x)^5)$
363	1	$\{2341, 3142, 4123, 1234\}$	
	2	$\{2413, 4312, 3124, 1342\}$	$(1-7x+20x^2-29x^3+24x^4-12x^5+2x^6)/((1-3x+x^2)(1-x)^5)$
364	1	$\{2341, 3124, 4132, 1432\}$	$(1-5x+9x^2-5x^3+3x^4-6x^5-6x^6+x^8-2x^9)/((1-x-x^2-x^3)(1-2x)(1-x)^3)$
365	1	$\{2341, 3124, 4132, 1342\}$	$(1-5x+10x^2-8x^3+5x^4)/((1-2x)(1-x)^4)$
366	1	$\{2341, 3124, 4132, 1324\}$	$(1-7x+20x^2-27x^3+16x^4-11x^6+10x^7-x^8-2x^9)/((1-2x)(1-x-x^2)(1-x)^5)$
367	1	$\{2341, 3124, 4132, 4123\}$	$(1-7x+20x^2-29x^3+24x^4-10x^5-2x^6+2x^7)/((1-2x)(1-x)^2(1-4x+5x^2-3x^3))$
368	1	$\{2341, 3124, 4132, 1423\}$	$(1-11x+54x^2-155x^3+289x^4-371x^5+338x^6-216x^7+83x^8-2x^9-17x^{10}+6x^{11})/((1-2x)(1-x)^6(1-4x+5x^2-3x^3))$
369	1	$\{2341, 3124, 4132, 1243\}$	
	2	$\{4312, 3124, 1342, 1243\}$	$(1-6x+15x^2-18x^3+13x^4-5x^5-3x^6+2x^7)/((1-2x)(1-x)^5)$
370	1	$\{2341, 3124, 4132, 1234\}$	$(1-6x+15x^2-18x^3+13x^4-5x^5-3x^6+2x^8)/((1-2x)(1-x)^5)$
371	1	$\{2341, 3124, 1432, 4123\}$	$(1-5x+8x^2-3x^3+2x^4-9x^5-10x^6+8x^7-3x^9+x^{10})/((1-x-x^2-x^3)(1-3x+x^2)(1-x)^2)$
372	1	$\dagger\{2341, 3124, 1342, 4123\}$	$C(x)+x^3/((1-2x)(1-x)^4)$
373	1	$\dagger\{2341, 3124, 4123, 1423\}$	$1+(x^4C^5(x)+x^3C^3(x)+xC(x))/(1-x)+x^3(1-3x+4x^2-4x^3+3x^4-2x^5)/((1-x)^5(1-4x+5x^2-3x^3))$
374	1	$\dagger\{2341, 3124, 4123, 1243\}$	$1+(x^4C^5(x)+x^3C^3(x)+xC(x))/(1-x)+x^3(1-x-x^2-2x^3+2x^4)/((1-x)^5(1-2x))$
375	1	$\{2341, 4132, 1432, 1324\}$	
	2	$\{4213, 3124, 4132, 1342\}$	
	3	$*\{2143, 3412, 1432, 1243\}$	
	4	$\{2143, 1324, 4123, 1234\}$	$(1-4x+4x^2+x^3+2x^4)/((1-2x)(1-3x+x^2))$, [10]
376	1	$\{2341, 4132, 1432, 4123\}$	$(1-6x+14x^2-15x^3+10x^4-4x^5-10x^6+16x^7-9x^8+2x^9)/((1-2x)(1-2x-x^2+x^3)(1+x^2)(1-x)^3)$
377	1	$\{2341, 4132, 1432, 1234\}$	$(1-6x+14x^2-14x^3+7x^4-5x^5-5x^6+13x^7-6x^8)/((1-2x)^2(1-x)^3)$
378	1	$\{2341, 4132, 1342, 1324\}$	
	2	$\{2314, 4132, 1432, 1324\}$	
	3	$\{2314, 4132, 1342, 1324\}$	
	4	$\{4213, 3124, 4132, 1432\}$	
	5	$\{4213, 3124, 1342, 1324\}$	
	6	$\{4213, 4132, 1342, 1324\}$	
	7	$*\{3412, 3142, 4132, 1324\}$	
	8	$*\{3412, 3142, 1324, 1423\}$	
	9	$*\{3412, 3142, 1423, 1243\}$	
	10	$*\{3412, 1342, 1324, 1423\}$	
	11	$*\{3412, 1342, 1423, 1243\}$	
	12	$\{3124, 4132, 1342, 1324\}$	$(1-6x+13x^2-11x^3+4x^4)/((1-2x)(1-x)^2(1-3x+x^2))$
379	1	$\{2341, 4132, 1342, 4123\}$	$(1-7x+20x^2-29x^3+25x^4-14x^5+3x^6)/((1-2x)(1-x)^3(1-3x+2x^2-x^3))$
380	1	$\{2341, 4132, 1342, 1234\}$	$(1-7x+20x^2-28x^3+21x^4-8x^5-3x^6+x^7)/((1-2x)^2(1-x)^4)$
381	1	$\{2341, 4132, 1324, 4123\}$	$(1-6x+14x^2-13x^3+3x^4+2x^5-8x^6+10x^7+2x^8-4x^9)/((1-2x)(1-x-x^2)(1-x)^4)$
382	1	$\{2341, 4132, 1324, 1423\}$	$(1-5x+9x^2-6x^3+3x^4-x^5-x^6+x^7)/((1-x)^3(1-3x+x^2))$
383	1	$\{2341, 4132, 1324, 1243\}$	$(1-7x+18x^2-18x^3+2x^4+5x^5-5x^6+7x^7+3x^8-2x^9)/((1-2x)(1-x-x^2)(1-x)^2(1-3x+x^2))$
384	1	$\{2341, 4132, 1324, 1234\}$	$(1-8x+26x^2-41x^3+29x^4-2x^5-16x^6+19x^7+2x^8-15x^9+2x^{10}+4x^{11})/((1-2x)^2(1-x-x^2)(1-x)^4)$
385	1	$\{2341, 4132, 4123, 1423\}$	$(1-6x+14x^2-15x^3+9x^4-2x^5-2x^6)/((1-2x)(1-x)(1-4x+5x^2-3x^3))$
386	1	$\{2341, 4132, 4123, 1243\}$	$(1-7x+21x^2-33x^3+31x^4-17x^5+5x^7-2x^8)/((1-2x)(1-x)^6)$
387	1	$\{2341, 4132, 4123, 1234\}$	$(1-7x+21x^2-33x^3+31x^4-16x^5-x^6+2x^7+3x^8-2x^9)/((1-2x)(1-x)^6)$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
388	1	$\{2341, 4132, 1423, 1234\}$	$(1-6x+14x^2-14x^3+7x^4-3x^5-3x^6)/((1-2x)^2(1-x)^3)$
389	1	$\{2341, 4132, 1243, 1234\}$	$(1-7x+20x^2-28x^3+21x^4-8x^5-5x^6+4x^7+4x^8-4x^9)/((1-2x)^2(1-x)^4)$
390	1	$\{2341, 1432, 1324, 4123\}$	$(1-7x+19x^2-24x^3+15x^4-11x^5+3x^6+17x^7-19x^8+10x^9-2x^{10})/((1-2x)(1-x)^3(1-3x+x^2))$
391	1	$\{2341, 1432, 4123, 1423\}$	$(1-6x+13x^2-11x^3+5x^4-7x^5+5x^6-x^7)/((1-x)^3(1-x-x^2-x^3)(1-3x+x^2))$
392	1	$\{2341, 1432, 4123, 1243\}$	$(1-6x+14x^2-15x^3+9x^4-6x^5-3x^6+8x^7-5x^8+x^9)/((1-x)^4(1-3x+x^2))$
393	1	$\{2341, 1432, 4123, 1234\}$	$(1-5x+9x^2-6x^3+3x^4-4x^5-8x^6+10x^7-5x^8+x^9)/((1-x)^3(1-3x+x^2))$
394	1	†$\{2341, 1342, 4123, 1423\}$	
	2	†$\{2134, 1342, 4123, 1234\}$	
	3	†$\{4312, 3142, 4132, 1423\}$	
	4	†$\{2413, 2431, 1324, 1243\}$	
	5	†$\{3142, 4132, 1423, 1243\}$	
	6	†$\{3124, 1342, 1324, 4123\}$	
	7	†$\{1342, 1324, 4123, 1234\}$	$C(x)+x^3C^3(x)/((1-x)(1-2x))$
395	1	†$\{2341, 1324, 4123, 1423\}$	$C(x)+x^3(1-x-x^3)/((1-x)^5(1-2x))$
396	1	†$\{2341, 1324, 4123, 1243\}$	$C(x)+x^3(1-2x-x^2+6x^4-3x^5)/((1-x)^5(1-2x)(1-x-x^2))$
397	1	†$\{2341, 1324, 4123, 1234\}$	$C(x)+x^3(1-2x+2x^2-4x^3+2x^4)/((1-x)^6(1-2x))$
398	1	†$\{2341, 4123, 1423, 1243\}$	
	2	†$\{2341, 4123, 1423, 1234\}$	$C(x)+x^3C^3(x)/(1-x)^2+x^4/((1-x)^4(1-2x))$, [9]
399	1	†$\{2341, 4123, 1243, 1234\}$	$(1+x^2)C(x)+x^3C^3(x)-x^2(1-7x+18x^2-26x^3+23x^4-10x^5+2x^6)/((1-x)^6(1-2x))$
400	1	$\{2314, 4213, 2413, 1432\}$	$(1-7x+20x^2-29x^3+24x^4-10x^5)/((1-x)^2(1-4x+5x^2-3x^3)(1-2x))$
401	1	$\{2314, 4213, 2143, 1432\}$	$(1-5x+10x^2-9x^3+6x^4)/((1-x)^2(1-4x+5x^2-3x^3))$
402	1	$\{2314, 4213, 2134, 1432\}$	$(1-4x+6x^2-3x^3+3x^4+2x^5)/((1-x)(1-4x+5x^2-3x^3))$
403	1	$\{2314, 4213, 4312, 1432\}$	$(1-6x+15x^2-18x^3+13x^4-5x^5-4x^6+4x^7+x^8)/((1-x)^5(1-2x))$
404	1	$\{2314, 4213, 3142, 1432\}$	$(1-7x+20x^2-29x^3+24x^4-11x^5+x^6+2x^7)/((1-x)^2(1-4x+5x^2-3x^3)(1-2x))$
405	1	$\{2314, 4213, 3124, 1432\}$	$(1-5x+9x^2-5x^3+2x^5-3x^6)/((1-x)(1-4x+5x^2-3x^3)(1-x-x^2))$
406	1	$\{2314, 4213, 4132, 1432\}$	$(1-5x+9x^2-5x^3+2x^4+x^5)/((1-x)^2(1-2x)^2)$
407	1	$\{2314, 4213, 4132, 1342\}$	$(1-8x+27x^2-49x^3+54x^4-40x^5+19x^6-6x^7+x^8)/((1-x)^4(1-3x+2x^2-x^3)(1-2x))$
408	1	$\{2314, 4213, 1432, 1342\}$	$(1-6x+14x^2-15x^3+10x^4-6x^5-x^6+2x^7)/((1-x)^2(1-3x+2x^2-x^3)(1-2x))$
409	1	$\{2314, 4213, 1432, 1324\}$	$(1-6x+15x^2-19x^3+15x^4-5x^5)/((1-x)^3(1-4x+5x^2-3x^3))$
410	1	$\{2314, 4213, 1432, 4123\}$	$(1-3x+2x^2+2x^3+6x^4+x^5-3x^6-3x^7)/((1-x)^2(1-x-x^2-x^3)^2)$
411	1	$\{2314, 4213, 1432, 1423\}$	$(1-5x+9x^2-5x^3+x^4-3x^6)/((1-x)^2(1-3x+2x^2-x^3)(1-x-x^2))$
412	1	$\{2314, 4213, 1432, 1243\}$	$(1-5x+10x^2-9x^3+7x^4-3x^5-x^6+x^7)/((1-x)^3(1-3x+2x^2-x^3))$
413	1	$\{2314, 4213, 1432, 1234\}$	$(1-2x+2x^2-x^3+7x^4+10x^5+4x^6+2x^7)(1+x)/((1-x-x^2-2x^3-3x^4-x^5)(1-x))$
414	1	$\{2314, 2413, 4312, 1432\}$	$(1-6x+14x^2-13x^3+3x^4+3x^5-6x^6+2x^7)/((1-x)^4(1-2x)(1-x-x^2))$
415	1	$\{2314, 2413, 4132, 1432\}$	
	2	$\{2314, 3142, 4132, 1432\}$	
	3	$\{2314, 4132, 1342, 1243\}$	
	4	$\{2143, 2134, 4132, 1432\}$	
	5	$\{2143, 3124, 4132, 1432\}$	
	6	$\{2134, 3142, 4132, 1342\}$	
	7	$\{2134, 3142, 1342, 4123\}$	
	8	$\{3142, 4132, 1342, 1234\}$	
	9	$\{3142, 4132, 1423, 1234\}$	
	10	$\{3124, 4132, 1342, 1243\}$	$(1-7x+19x^2-24x^3+15x^4-5x^5)/((1-3x+x^2)(1-x)^3(1-2x))$
416	1	$\{2314, 2413, 4132, 1342\}$	
	2	$\{2314, 3142, 4132, 1342\}$	
	3	*$\{2143, 3412, 3142, 1423\}$	
	4	$\{3142, 1342, 4123, 1234\}$	
	5	$\{3142, 4123, 1423, 1234\}$	$(1-6x+13x^2-12x^3+6x^4-x^5)(1-2x)/((1-3x+x^2)^2(1-x)^3)$
417	1	$\{2314, 2413, 1432, 4123\}$	$(1-5x+9x^2-6x^3+5x^4-5x^5+x^7-x^8-x^9)/((1-x)^2(1-3x+2x^2-x^3)(1-x-x^2-x^3))$
418	1	$\{2314, 2143, 4312, 1432\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-2x^6-x^7)/(1-x)^5$
419	1	$\{2314, 2143, 4312, 1342\}$	$(1-5x+11x^2-11x^3+9x^4-4x^5-2x^6+4x^7-2x^8)/(1-x)^6$
420	1	$\{2314, 2143, 4132, 1432\}$	$(1-6x+14x^2-15x^3+9x^4-4x^5-2x^6)/((1-3x+x^2)(1-x)^4)$
421	1	$\{2314, 2143, 4132, 1342\}$	$(1-5x+9x^2-6x^3+3x^4-2x^5-x^6)/((1-3x+x^2)(1-x)^3)$
422	1	$\{2314, 2143, 1432, 4123\}$	$(1-3x+2x^2+2x^3+3x^4+x^5-7x^6-4x^7)/((1-2x-x^2)(1-x)^2)$
423	1	$\{2314, 2143, 1342, 4123\}$	$(1-4x+6x^2-3x^3+3x^4-x^5)(1-2x)/((1-3x+x^2)(1-x)^4)$
424	1	$\{2314, 2134, 4312, 1432\}$	$(1-3x+4x^2+5x^4+7x^5-4x^6-7x^7+3x^8)/(1-x)^4$
425	1	$\{2314, 2134, 3124, 1432\}$	$(1-x)^3(1-2x)/(1-6x+13x^2-14x^3+6x^4+2x^5+4x^6-8x^7+4x^8-x^9)$
426	1	$\{2314, 2134, 4132, 1432\}$	$(1-4x+6x^2-3x^3+4x^4+x^5-3x^6)/((1-x)^2(1-3x+2x^2-x^3))$
427	1	$\{2314, 2134, 4132, 1342\}$	$(1-5x+10x^2-9x^3+7x^4-x^5-x^6)/((1-x)^3(1-3x+2x^2-x^3))$
428	1	$\{2314, 2134, 1432, 4123\}$	$(1-4x+5x^2-x^3+2x^4-2x^5-13x^6+x^7+8x^8)/((1-3x+x^2)(1-x)^2)$
429	1	$\{2314, 4312, 3412, 1432\}$	$(1-5x+9x^2-4x^3-x^4+x^5-5x^6-x^7+x^8)/((1-x)^3(1-2x)(1-x-x^2))$
430	1	$\{2314, 4312, 3412, 1342\}$	
	2	$\{2314, 4312, 3142, 1342\}$	$(1-9x+33x^2-62x^3+63x^4-37x^5+14x^6-x^8)/((1-3x+x^2)(1-x)^3(1-2x)^2)$
431	1	$\{2314, 4312, 3142, 1432\}$	$(1-7x+20x^2-27x^3+16x^4-9x^6+7x^7)/((1-x)^5(1-2x)(1-x-x^2))$
432	1	$\{2314, 4312, 3124, 1432\}$	$(1-5x+10x^2-7x^3+2x^4+3x^5-7x^6+x^8)/((1-x)^5(1-x-x^2))$
433	1	$\{2314, 4312, 4132, 1432\}$	$(1-7x+21x^2-33x^3+31x^4-17x^5+2x^6+x^7)/((1-x)^6(1-2x))$
434	1	$\{2314, 4312, 4132, 1342\}$	$(1-5x+11x^2-12x^3+11x^4-4x^5-x^6+2x^7-x^8)(1-2x)/((1-x)^5(1-3x+2x^2-x^3))$
435	1	$\{2314, 4312, 1432, 1342\}$	$(1-7x+20x^2-27x^3+16x^4-x^5-11x^6+15x^7-5x^8)/((1-x)^5(1-2x)(1-x-x^2))$
436	1	$\{2314, 4312, 1432, 1324\}$	
	2	$\{4312, 3124, 1342, 1234\}$	$(1-5x+11x^2-11x^3+9x^4-x^6)/(1-x)^6$
437	1	$\{2314, 4312, 1432, 4123\}$	$(1-4x+6x^2-2x^3+4x^4-2x^5-7x^6-2x^7+x^8+x^9)/((1-x)^4(1-x-x^2-x^3))$
438	1	$\{2314, 4312, 1432, 1423\}$	$(1-5x+9x^2-3x^3-4x^4+4x^5-6x^6-3x^7+4x^8+2x^9)/((1-x)^4(1-x-x^2)^2)$
439	1	$\{2314, 4312, 1432, 1243\}$	

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
	2	$\{2314, 4312, 1342, 1234\}$	$(1-5x+11x^2-11x^3+9x^4-2x^5-4x^6+2x^7)/(1-x)^6$
440	1	$\{2314, 4312, 1432, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+13x^5+3x^6-7x^7-7x^8-2x^9)/(1-x)^3$
441	1	$\{2314, 4312, 1342, 4123\}$	$(1-7x+21x^2-34x^3+35x^4-27x^5+10x^6+2x^7-4x^8+2x^9)/((1-x)^5(1-3x+2x^2-x^3))$
442	1	$\{2314, 4312, 1342, 1423\}$	$(1-8x+27x^2-48x^3+49x^4-31x^5+8x^6+7x^7-4x^8)/((1-x)^5(1-2x)^2)$
443	1	$\{2314, 4312, 1342, 1243\}$	
	2	$\{2134, 4312, 3124, 1432\}$	$(1-5x+11x^2-11x^3+9x^4-x^5-4x^6+x^7)/(1-x)^6$
444	1	$\{2314, 3412, 3124, 1432\}$	$(1-5x+10x^2-7x^3+2x^4+2x^5-5x^6)/((1-x-x^2)(1-x)^5)$
445	1	$\{2314, 3412, 4132, 1432\}$	$(1-7x+20x^2-28x^3+21x^4-11x^5+2x^6+4x^7-x^8)/((1-x)^4(1-2x)^2)$
446	1	$\{2314, 3412, 1432, 4123\}$	$(1-5x+10x^2-8x^3+6x^4-6x^5-x^6-x^7+4x^8-2x^9)/((1-x)^5(1-x-x^2-x^3))$
447	1	$*\{2314, 3412, 1342, 4123\}$	$(1-11x+54x^2-155x^3+289x^4-368x^5+322x^6-186x^7+63x^8-8x^9)/((1-x)^6(1-4x+5x^2-3x^3)(1-2x))$
448	1	$\{2314, 3142, 3124, 1432\}$	$(1-x)^4(1-x-x^2)/(1-6x+13x^2-13x^3+2x^4+5x^5-2x^6+x^7)$
449	1	$\{2314, 3142, 1432, 4123\}$	$(1-4x+5x^2-x^3+4x^4-2x^5-x^6+x^7+x^8)/((1-x)(1-x-x^2-x^3)(1-3x+2x^2-x^3))$
450	1	$\{2314, 3142, 1342, 4123\}$	$(1-7x+20x^2-30x^3+27x^4-14x^5+4x^6)(1-2x)/((1-x)^3(1-3x+x^2)(1-4x+5x^2-3x^3))$
451	1	$\{2314, 3124, 4132, 1432\}$	$(1-6x+14x^2-14x^3+6x^4+x^5-6x^6+3x^7)/((1-x)^3(1-3x+2x^2-x^3)(1-x-x^2))$
452	1	$\{2314, 3124, 4132, 1342\}$	$(1-7x+20x^2-29x^3+25x^4-15x^5+4x^6)/((1-x)^3(1-3x+2x^2-x^3)(1-2x))$
453	1	$\{2314, 3124, 1432, 4123\}$	$(1-x-x^2-x^3-x^4)(1-4x+5x^2)/((1-x)^2(1-3x+x^2)(1-x-x^2))$
454	1	$\{2314, 3124, 1432, 1423\}$	$(1-x)^2(1-x-x^2)(1-2x)/(1-6x+12x^2-9x^3-2x^4+7x^5)$
455	1	$\{2314, 3124, 1432, 1243\}$	$(1-x)^2(1-3x+2x^2-x^3)/(1-6x+13x^2-15x^3+9x^4-x^5-x^6+x^7)$
456	1	$\{2314, 3124, 1432, 1234\}$	$(1-x)(1-2x-x^3)/(1-4x+4x^2-3x^3+7x^6+2x^7+3x^8)$
457	1	$\dagger\{2314, 3124, 1342, 1423\}$	
	2	$\dagger\{2413, 3142, 1324, 1243\}$	$C(x)/(1-x^3C(x)/((1-x)^2(1-2x)))$, [9]
458	1	$\{2314, 4132, 1432, 1342\}$	
	2	$*\{4213, 2143, 4132, 1324\}$	
	3	$*\{2143, 4312, 3142, 1423\}$	
	4	$\{2143, 3412, 3142, 4123\}$	
	5	$*\{2134, 3412, 3142, 4123\}$	
	6	$\{4312, 3142, 3124, 1432\}$	
	7	$\{3412, 3142, 3124, 1432\}$	
	8	$*\{3412, 4132, 1342, 1324\}$	
	9	$*\{3412, 4132, 1342, 1243\}$	
	10	$*\{3412, 1432, 1324, 1423\}$	
	11	$*\{3412, 1432, 1423, 1243\}$	
	12	$\{3142, 4132, 1243, 1234\}$	
	13	$\{3142, 1324, 4123, 1234\}$	
	14	$\{3124, 4132, 1342, 4123\}$	
	15	$\{4132, 1342, 1324, 4123\}$	$(1-5x+8x^2-3x^3+x^4)/((1-x)(1-3x+x^2)(1-2x))$
459	1	$\{2314, 4132, 1432, 4123\}$	$(1-5x+9x^2-5x^3+3x^4-4x^5-2x^6+x^7)/((1-x)^3(1-x-x^2-x^3)(1-2x))$
460	1	$\{2314, 4132, 1432, 1423\}$	$(1-6x+13x^2-10x^3+2x^5-x^6)/((1-x)^3(1-3x+x^2)(1-x-x^2))$
461	1	$\{2314, 4132, 1432, 1243\}$	$(1-7x+19x^2-24x^3+15x^4-7x^5+4x^6)/((1-x)^3(1-3x+x^2)(1-2x))$
462	1	$\{2314, 4132, 1432, 1234\}$	$(1-4x+6x^2-3x^3+4x^4-5x^6+8x^7-3x^8)/((1-x)^2(1-3x+2x^2-x^3))$
463	1	$\{2314, 4132, 1342, 4123\}$	$(1-7x+20x^2-29x^3+25x^4-16x^5+5x^6+x^7-2x^8+x^9)/((1-x)^3(1-3x+2x^2-x^3)(1-2x))$
464	1	$\{2314, 4132, 1342, 1423\}$	
	2	$\{2134, 3142, 4132, 1432\}$	$(1-7x+19x^2-24x^3+15x^4-6x^5+x^6)/((1-x)^3(1-3x+x^2)(1-2x))$
465	1	$\{2314, 4132, 1342, 1234\}$	$(1-5x+10x^2-9x^3+7x^4-2x^5-x^6+x^7)/((1-x)^3(1-3x+2x^2-x^3))$
466	1	$\{2314, 1432, 1342, 4123\}$	$(1-3x+2x^2+x^3+4x^4+x^5-x^7-x^8)(1-2x)/((1-x)^2(1-x-x^2-x^3)(1-3x+x^2))$
467	1	$\{2314, 1432, 1324, 4123\}$	$(1-2x+x^2-x^3)(1-4x+5x^2)/((1-x)^4(1-3x+x^2))$
468	1	$\{2314, 1432, 4123, 1423\}$	$(1-6x+13x^2-10x^3+2x^5-3x^6)/((1-x)^3(1-3x+x^2)(1-x-x^2))$
469	1	$\{2314, 1432, 4123, 1243\}$	$(1-4x+6x^2-4x^3+5x^4-2x^5)(1-x-x^2)/((1-x)^3(1-3x+x^2))$
470	1	$\{2314, 1432, 4123, 1234\}$	$(1-4x+5x^2-x^3+2x^4-2x^5-9x^6+2x^7)/((1-x)^2(1-3x+x^2))$
471	1	$\dagger\{2314, 1342, 1324, 4123\}$	
	2	$\dagger\{2314, 1342, 4123, 1234\}$	$C(x)+x^3C(x)/(1-x)^5$, [9]
472	1	$\dagger\{2314, 1342, 4123, 1423\}$	$C(x)+x^3C(x)/((1-2x)(1-x)^3)$
473	1	$\dagger\{2314, 1342, 4123, 1243\}$	$C(x)+x^3(1-3x+x^2+4x^4)C(x)/((1-2x)^2(1-x)^4)$
474	1	$\{4213, 2413, 2134, 1432\}$	$(1-x+x^2)(1-6x+13x^2-11x^3+3x^4+x^6)/(1-4x+5x^2-3x^3)^2$
475	1	$\{4213, 2413, 2134, 1342\}$	
	2	$*\{2413, 3124, 1342, 4123\}$	$(1-7x+18x^2-20x^3+10x^4-3x^5)/((1-x)^2(1-3x+x^2)^2)$, [9]
476	1	$\{4213, 2413, 3142, 1342\}$	
	2	$*\{2413, 2143, 3412, 3142\}$	
	3	$*\{2413, 1342, 4123, 1423\}$	
	4	$\{2143, 2134, 1324, 1243\}$	
	5	$\{2143, 2134, 1243, 1234\}$	
	6	$\{2143, 3124, 1324, 1243\}$	
	7	$\{2143, 1324, 1243, 1234\}$	
	8	$\{2143, 1423, 1243, 1234\}$	
	9	$\{2134, 1432, 1324, 1423\}$	
	10	$\{4312, 3412, 3142, 1342\}$	
	11	$\{4312, 3412, 4132, 1432\}$	
	12	$*\{4312, 3142, 4132, 1432\}$	
	13	$\{3412, 3142, 3124, 1342\}$	
	14	$*\{3412, 3142, 4132, 1342\}$	
	15	$*\{3412, 3142, 1432, 1342\}$	
	16	$*\{3412, 3142, 1342, 1423\}$	
	17	$\{3142, 3124, 1342, 1324\}$	
	18	$\{3142, 1342, 4123, 1423\}$	
	19	$\{3142, 1342, 1423, 1234\}$	
	20	$\{3124, 1432, 1324, 1243\}$	
	21	$\{4132, 1432, 4123, 1423\}$	
	22	$\{1432, 1342, 4123, 1423\}$	
	23	$\{1432, 1324, 1423, 1234\}$	
	24	$\{1432, 4123, 1423, 1243\}$	
	25	$\{1432, 1423, 1243, 1234\}$	$(1-3x)/(1-4x+2x^2)$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
477	1	$\{4213, 2413, 1432, 1324\}$	$(1-6x+13x^2-12x^3+6x^4)/((1-3x+x^2)(1-4x+5x^2-3x^3))$
478	1	$\{4213, 2413, 1432, 1234\}$	$(1-2x+x^3+6x^4+11x^5+2x^6-5x^7-3x^8-x^9)/((1-x)(1-x-x^2-x^3)(1-x-x^2-2x^3-3x^4-x^5))$"
479	1	$\{4213, 2413, 1342, 1234\}$	$(1-7x+20x^2-29x^3+25x^4-15x^5+6x^6+2x^7-2x^8)/((1-x)^3(1-3x+2x^2-x^3)(1-2x))$
480	1	$\{4213, 2143, 2134, 1432\}$	$(1-9x+35x^2-77x^3+107x^4-97x^5+53x^6-12x^7-4x^8+2x^9)/((1-x)^2(1-4x+5x^2-3x^3)^2)$
481	1	$\{4213, 2143, 2134, 1342\}$	$(1-5x+8x^2-4x^3+2x^4-x^5)(1-2x)/((1-x)^2(1-3x+x^2)^2)$
482	1	$\{4213, 2143, 3142, 1342\}$	
	2	$\{3142, 1342, 4123, 1243\}$	
	3	$\{4132, 1432, 4123, 1243\}$	$(1-5x+9x^2-7x^3+3x^4)(1-2x)/((1-x)^5(1-3x))$
483	1	$\{4213, 2143, 3124, 1432\}$	$(1-6x+14x^2-15x^3+9x^4-3x^5-2x^6)/((1-x)(1-4x+5x^2-3x^3)(1-2x))$
484	1	$\{4213, 2143, 3124, 1342\}$	$(1-7x+19x^2-24x^3+15x^4-8x^5+5x^6)/((1-x)^3(1-3x+x^2)(1-2x))$
485	1	$\{4213, 2143, 4132, 1234\}$	$(1-2x+3x^3+7x^4+9x^5+3x^6+2x^7+4x^8)/((1-x)(1-x-x^2-x^3)(1-x-x^2))$
486	1	$\{4213, 2143, 1432, 1324\}$	$(1-9x+34x^2-70x^3+87x^4-68x^5+32x^6-9x^7+x^8)/((1-x)^3(1-3x+x^2)(1-4x+5x^2-3x^3))$
487	1	$\{4213, 2143, 1432, 1234\}$	$(1-2x+x^3+6x^4+10x^5-11x^7-17x^8-2x^9+8x^10+10x^11+4x^12)/((1-x)(1-x-x^2-x^3)(1-x-x^2-2x^3-3x^4-x^5))$
488	1	$\{4213, 2143, 1342, 1324\}$	$(1-2x)(1-7x+19x^2-25x^3+18x^4-8x^5+x^6)/((1-x)^4(1-3x+x^2)^2)$
489	1	$\{4213, 2143, 1342, 1234\}$	$(1-4x+5x^2-x^3+3x^4-x^5-4x^6+3x^7+x^8)/((1-3x+2x^2-x^3)(1-2x))$
490	1	$\{4213, 2134, 4312, 1432\}$	$(1-5x+11x^2-11x^3+9x^4-3x^6-x^7)/(1-x)^6$
491	1	$\{4213, 2134, 4312, 1342\}$	$(1-5x+11x^2-11x^3+9x^4-x^5+x^7)/(1-x)^6$
492	1	$\{4213, 2134, 3412, 1432\}$	$(1-4x+6x^2-x^4+x^5)(1+x^2)/(1-x)^5$
493	1	$\{4213, 2134, 3412, 1342\}$	$(1-6x+15x^2-18x^3+13x^4-6x^5)/((1-x)^5(1-2x))$
494	1	$\{4213, 2134, 3142, 1432\}$	$(1-8x+27x^2-50x^3+57x^4-42x^5+19x^6-5x^7)/((1-x)(1-4x+5x^2-3x^3)^2)$
495	1	$\{4213, 2134, 3142, 1342\}$	$(1-5x+8x^2-4x^3+2x^4)(1-2x)/((1-x)^2(1-3x+x^2)^2)$
496	1	$\{4213, 2134, 3124, 1432\}$	$(1-4x+5x^2+x^3-2x^4)(1+x^2)/((1-x)(1-4x+5x^2-3x^3))$
497	1	$\{4213, 2134, 3124, 1342\}$	$(1-6x+14x^2-15x^3+9x^4-4x^5+2x^6)/((1-x)^4(1-3x+x^2))$
498	1	$\{4213, 2134, 4132, 1432\}$	$(1-7x+20x^2-28x^3+21x^4-8x^5-x^6+x^7)/((1-x)^4(1-2x)^2)$
499	1	$\{4213, 2134, 4132, 1342\}$	$(1-7x+20x^2-28x^3+21x^4-9x^5+4x^6)/((1-x)^4(1-2x)^2)$
500	1	$\{4213, 2134, 4132, 1243\}$	$(1-7x+19x^2-23x^3+12x^4-5x^5+x^6+5x^7)/((1-x)^2(1-2x)^3)$
501	1	$\{4213, 2134, 1432, 1342\}$	$(1-5x+9x^2-7x^3+6x^4-3x^5+x^6+x^7)/(1-3x+2x^2-x^3)^2$
502	1	$\{4213, 2134, 1432, 1324\}$	$(1-7x+20x^2-29x^3+24x^4-11x^5+2x^7-x^8)/((1-x)^2(1-4x+5x^2-3x^3)(1-2x))$
503	1	$\{4213, 2134, 1432, 4123\}$	$(1-4x+5x^2+4x^4-4x^5-4x^6-2x^7+x^8-2x^9+x^{10})/((1-x)^3(1-x-x^2-x^3)^2)$
504	1	$\{4213, 2134, 1432, 1423\}$	$(1-7x+20x^2-30x^3+29x^4-21x^5+9x^6-x^7-2x^8+x^9)/((1-x)^2(1-3x+2x^2-x^3)^2)$
505	1	$\{4213, 2134, 1432, 1243\}$	$(1-6x+14x^2-16x^3+13x^4-11x^5+3x^6+2x^7-3x^8+x^9)/((1-x)(1-3x+2x^2-x^3)^2)$
506	1	$\{4213, 2134, 1432, 1234\}$	$(1-x-x^2+6x^4+17x^5+17x^6+9x^7-3x^8-7x^9-4x^{10}-x^{11})/((1-x-x^2-x^3)(1-x-x^2-2x^3-3x^4-x^5))$
507	1	$\{4213, 2134, 1342, 1324\}$	
	2	$*\{4213, 4132, 1324, 1423\}$	
	3	$\{2134, 4132, 1342, 1324\}$	
	4	$\{4312, 3124, 4132, 1432\}$	
	5	$\{3124, 4132, 1432, 1324\}$	
	6	$\{3124, 4132, 1432, 4123\}$	
	7	$*\{3124, 4132, 1324, 1423\}$	
	8	$\{4132, 1342, 1324, 1234\}$	$(1-x)(1-5x+7x^2)/((1-2x)^2(1-3x+x^2))$
508	1	$\{4213, 2134, 1342, 4123\}$	$(1-7x+20x^2-28x^3+21x^4-9x^5+3x^6+2x^7-2x^8)/((1-x)^4(1-2x)^2)$
509	1	$\{4213, 2134, 1342, 1423\}$	$(1-7x+20x^2-30x^3+29x^4-19x^5+9x^6-2x^7)/((1-x)^2(1-3x+2x^2-x^3)^2)$
510	1	$\{4213, 2134, 1342, 1243\}$	$(1-8x+27x^2-50x^3+59x^4-51x^5+33x^6-17x^7+6x^8-x^9)/((1-x)^3(1-3x+2x^2-x^3)^2)$
511	1	$\{4213, 2134, 1342, 1234\}$	$(1-6x+14x^2-15x^3+10x^4-4x^5+3x^6-x^7)/((1-x)^2(1-3x+2x^2-x^3)(1-2x))$
512	1	$\{4213, 4312, 3412, 1342\}$	
	2	$\{4213, 3412, 1342, 4123\}$	$(1-4x+5x^2-3x^3+2x^4+x^5)/((1-x)(1-3x)(1-x+x^2))$
513	1	$\{4213, 4312, 3142, 1342\}$	
	2	$\{4213, 3412, 4132, 1342\}$	$(1-5x+9x^2-8x^3+5x^4-x^5)/((1-x)^2(1-3x)(1-x+x^2))$
514	1	$\{4213, 4312, 3124, 1432\}$	$(1-6x+14x^2-15x^3+9x^4-4x^5-2x^6+x^7)/((1-x)^4(1-3x+x^2))$
515	1	$\{4213, 4312, 3124, 1342\}$	$(1-6x+14x^2-15x^3+9x^4-6x^5-3x^6+2x^7)/((1-x)^4(1-3x+x^2))$
516	1	$*\{4213, 4312, 4132, 1324\}$	$(1-10x+44x^2-110x^3+172x^4-173x^5+108x^6-38x^7+7x^8)/((1-x)^7(1-2x)^2)$
517	1	$\{4213, 4312, 4132, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+6x^5-8x^6-25x^7+46x^8-28x^9+6x^{10})/(1-x)^5$
518	1	$\{4213, 4312, 1432, 1324\}$	$(1-8x+28x^2-54x^3+64x^4-47x^5+18x^6-3x^7)/((1-x)^7(1-2x))$
519	1	$\{4213, 4312, 1432, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+15x^5+5x^6-30x^7+x^8+8x^9)/(1-x)^3$
520	1	$\{4213, 4312, 1342, 1324\}$	$(1-7x+21x^2-33x^3+31x^4-17x^5+2x^6)/((1-x)^6(1-2x))$
521	1	$\{4213, 4312, 1342, 1243\}$	$(1-3x+3x^2+x^3+4x^4+6x^5)/((1-x)^2(1-2x))$
522	1	$\{4213, 4312, 1342, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-6x^6+x^7+7x^8-2x^9)/(1-x)^5$
523	1	$\{4213, 3412, 3124, 1432\}$	$(1-6x+14x^2-15x^3+9x^4-7x^5+3x^7-x^8)/((1-x)^4(1-3x+x^2))$
524	1	$\{4213, 3412, 3124, 1342\}$	$(1-8x+26x^2-43x^3+39x^4-23x^5+12x^6-3x^7)/((1-x)^4(1-3x+x^2)(1-2x))$
525	1	$*\{4213, 3412, 4132, 1324\}$	$(1-7x+20x^2-28x^3+21x^4-8x^5+4x^7-4x^8)/((1-x)^4(1-2x)^2)$
526	1	$\{4213, 3412, 1432, 1342\}$	$(1-4x+5x^2-2x^3+3x^4-x^5)/((1-x)^2(1-3x+x^2-x^3))$
527	1	$\{4213, 3412, 1432, 1324\}$	$(1-6x+15x^2-18x^3+13x^4-7x^5-x^6+4x^7-2x^8)/((1-x)^5(1-2x))$
528	1	$\{4213, 3412, 1432, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+11x^5-3x^7)/(1-x)^3$
529	1	$\{4213, 3412, 1342, 1324\}$	$(1-8x+27x^2-48x^3+49x^4-30x^5+10x^6)/((1-x)^5(1-2x)^2)$
530	1	$\{4213, 3412, 1342, 1423\}$	
	2	$\{2413, 4312, 1342, 4123\}$	$(1-5x+9x^2-7x^3+4x^4-x^5)/((1-x)^2(1-4x+4x^2-2x^3))$
531	1	$\{4213, 3412, 1342, 1243\}$	$(1-5x+10x^2-8x^3+5x^4-x^5-x^6)/((1-x)^4(1-2x))$
532	1	$\{4213, 3412, 1342, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-11x^5+x^6+5x^7-2x^8)/(1-x)^7$
533	1	$\{4213, 3142, 4132, 1342\}$	
	2	$\{4213, 3142, 1342, 1423\}$	
	3	$\{4213, 1342, 4123, 1423\}$	

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
	4	{2413, 3142, 1342, 4123}	
	5	{2143, 2134, 1432, 1324}	
	6	{2143, 2134, 1423, 1243}	
	7	{2134, 3142, 1342, 1423}	
	8	{2134, 1432, 1324, 1243}	
	9	{3142, 4132, 1432, 4123}	
	10	{3142, 4132, 1342, 4123}	
	11	{4132, 1342, 4123, 1423}	$(1-4x+4x^2-2x^3)/(1-5x+7x^2-5x^3+x^4)$
534	1	∗{4213, 3142, 4132, 1324}	
	2	∗{3142, 3124, 4132, 1324}	
	3	∗{3142, 3124, 1324, 4123}	
	4	{1432, 1324, 4123, 1423}	$(1-7x+17x^2-15x^3+3x^4)/((1-2x)(1-3x+x^2)^2)$, [10]
535	1	{4213, 3142, 4132, 1234}	$(1-4x+5x^2+x^3+x^4+x^5+5x^6+4x^7)/((1-x)^3(1-x-x^2-x^3)(1-x-x^2))$
536	1	{4213, 3142, 1432, 1342}	
	2	{4213, 3142, 1342, 4123}	
	3	{4213, 4132, 1342, 1423}	
	4	∗{2413, 3412, 3142, 1432}	
	5	{2413, 4132, 1342, 4123}	
	6	{2143, 2134, 1432, 1423}	
	7	{2143, 2134, 1432, 1243}	
	8	{2143, 2134, 1342, 1423}	
	9	{2143, 3124, 1243, 1234}	
	10	{2143, 1324, 1423, 1234}	
	11	∗{3412, 3142, 1432, 1423}	
	12	∗{3412, 1432, 1342, 1423}	
	13	{3142, 1432, 4123, 1423}	
	14	{4132, 1432, 1342, 4123}	$(1-3x+x^2-x^3)/(1-4x+3x^2-2x^3)$
537	1	{4213, 3142, 1432, 1234}	$(1-2x+x^3+6x^4+10x^5-9x^7-9x^8-4x^9)/((1-x)(1-x-x^2-x^3)(1-x-x^2-2x^3-3x^4-x^5))$
538	1	{4213, 3142, 1342, 1243}	
	2	{2143, 3142, 1342, 4123}	
	3	{3412, 1432, 4123, 1423}	$(1-5x+9x^2-7x^3+4x^4)/((1-x)^2(1-4x+4x^2-2x^3))$
539	1	{4213, 3142, 1342, 1234}	$(1-6x+14x^2-15x^3+10x^4-5x^5+2x^7)/((1-x)^2(1-3x+2x^2-x^3)(1-2x))$
540	1	†{4213, 3124, 4132, 1423}	$(x^3C^3(x)+x^4C(x)-x^4C^3(x)+1-2x)C(x)/(1-2x)$
541	1	{4213, 3124, 4132, 1243}	$(1-7x+19x^2-23x^3+12x^4-2x^5+x^6-2x^7)/((1-x)^2(1-2x)^3)$
542	1	{4213, 3124, 1432, 1342}	$(1-4x+4x^2+x^3+2x^4-x^5-x^6)/((1-2x-x^2)(1-3x+2x^2-x^3))$
543	1	{4213, 3124, 1432, 1324}	$(1-5x+9x^2-6x^3+3x^4+x^5)/((1-4x+5x^2-3x^3)(1-2x))$
544	1	{4213, 3124, 1432, 4123}	$(1-5x+8x^2-3x^3+2x^4-5x^5+3x^6)/((1-x)^2(1-x-x^2-x^3)(1-3x+x^2))$
545	1	{4213, 3124, 1432, 1423}	$(1-5x+8x^2-4x^3+3x^4-2x^5-x^6+x^7)/((1-3x+2x^2-x^3)(1-3x+x^2))$
546	1	{4213, 3124, 1432, 1243}	$(1-6x+14x^2-15x^3+10x^4-7x^5+2x^6)/((1-x)^2(1-3x+2x^2-x^3)(1-2x))$
547	1	{4213, 3124, 1432, 1234}	$(1-2x+x^2+x^3+5x^4+11x^5-x^7-x^8-x^9)/((1-x)^2(1-x-x^2-2x^3-3x^4-x^5))$
548	1	{4213, 3124, 1342, 1423}	
	2	∗{2143, 3142, 1324, 4123}	
	3	{3142, 3124, 1432, 4123}	$(1-5x+8x^2-4x^3+3x^4-x^5)/((1-3x+2x^2-x^3)(1-3x+x^2))$, [10]
549	1	{4213, 3124, 1342, 1243}	$(1-7x+20x^2-29x^3+25x^4-16x^5+7x^6-2x^7)/((1-x)^3(1-3x+2x^2-x^3)(1-2x))$
550	1	{4213, 3124, 1342, 1234}	$(1-7x+21x^2-34x^3+35x^4-25x^5+14x^6-5x^7+x^8)/((1-x)^5(1-3x+2x^2-x^3))$
551	1	{4213, 4132, 1432, 1234}	$(1-2x+3x^3+7x^4+11x^5+7x^6-12x^7-5x^8)/((1-x)(1-x-x^2-x^3)(1-x-x^2))$
552	1	{4213, 4132, 1342, 1243}	$(1-5x+9x^2-7x^3+5x^4-x^5)/((1-x)^3(1-3x+x^2-x^3))$
553	1	{4213, 4132, 1342, 1234}	$(1-4x+5x^2+x^3+x^4-x^6+10x^7+8x^8)/((1-x)^3(1-x-x^2-x^3)(1-x-x^2))$
554	1	∗{4213, 4132, 1324, 4123}	$(1-5x+6x^2+5x^3-6x^4-3x^5+2x^6+x^7)/((1-x)(1-2x-x^2)^2(1-x-x^2))$
555	1	{4213, 4132, 1324, 1243}	$(1-10x+42x^2-95x^3+125x^4-97x^5+38x^6-3x^8)/((1-x)^4(1-3x+x^2)(1-2x)^2)$
556	1	{4213, 4132, 1324, 1234}	$(1-3x+2x^2+3x^3+4x^4+6x^5+7x^6-3x^8)/((1-x)^2(1-x-x^2-x^3)(1-x-x^2))$
557	1	{4213, 4132, 4123, 1234}	$(1-4x+5x^2+2x^3-2x^4+8x^5+8x^6+3x^7)/((1-x)^3(1-x-x^2)^2)$
558	1	{4213, 4132, 1423, 1234}	$(1-5x+9x^2-4x^3+x^5+x^6-x^7-4x^8-2x^9)/((1-x)^4(1-x-x^2-x^3)(1-x-x^2))$
559	1	{4213, 4132, 1243, 1234}	$(1-3x+2x^2+3x^3+4x^4+5x^5+3x^6-x^8)/((1-x)^2(1-x-x^2-x^3)(1-x-x^2))$
560	1	{4213, 1432, 1342, 1324}	$(1-5x+8x^2-4x^3+3x^4-x^6)/((1-3x+2x^2-x^3)(1-3x+x^2))$
561	1	{4213, 1432, 1342, 4123}	$(1-x-2x^2-4x^3-2x^4)/(1-2x-2x^2-4x^3-2x^4)$
562	1	{4213, 1432, 1342, 1423}	$(1-2x-x^2-2x^3-x^4)/(1-3x-2x^3-x^4)$
563	1	{4213, 1432, 1342, 1243}	$(1-4x+5x^2-3x^3+4x^4-x^6)/((1-x)^2(1-3x+x^2-2x^3))$
564	1	{4213, 1432, 1342, 1234}	$(1-2x+x^3+7x^4+12x^5+4x^6+6x^7+11x^8+9x^9+2x^{10})/((1-x)(1-x-x^2-x^3)(1-x-x^2-2x^3-2x^4))$
565	1	{4213, 1432, 1324, 4123}	$(1-4x+4x^2+2x^3+2x^4-3x^5-2x^6+x^7)/((1-x)^2(1-2x-x^2)(1-x-x^2-x^3))$
566	1	{4213, 1432, 1324, 1423}	$(1-5x+8x^2-4x^3+3x^4+x^5)/((1-3x+2x^2-x^3)(1-3x+x^2))$
567	1	{4213, 1432, 1324, 1243}	$(1-8x+26x^2-44x^3+44x^4-29x^5+9x^6-x^7)/((1-x)^3(1-3x+2x^2-x^3)(1-3x+x^2))$
568	1	{4213, 1432, 1324, 1234}	$(1-2x+2x^3+5x^4+13x^5+6x^6-11x^7-13x^8-7x^9-2x^{10})/((1-x)(1-x-x^2-2x^3-3x^4-x^5)(1-x-x^2))$
569	1	{4213, 1432, 4123, 1234}	$(1-2x+2x^3+8x^4+10x^5+3x^6-6x^7-4x^8-2x^9)/((1-x)(1-x-x^2-x^3)^2)$
570	1	{4213, 1432, 1423, 1234}	$(1+x)(1-3x+3x^2-2x^3+9x^4+4x^5+2x^6-x^7+2x^8)/((1-x)(1-x-x^2-x^3)(1-x-x^2-2x^3-2x^4))$
571	1	{4213, 1432, 1243, 1234}	$(1-2x+x^3+7x^4+11x^5+3x^6-14x^7-19x^8-16x^9-7x^{10}-2x^{11})/((1-x)(1-x-2x^2-x^3)(1-x-x^2-x^3)(1+x^2))$
572	1	{4213, 1342, 1324, 4123}	$(1-5x+8x^2-2x^3-x^4)/((1-x)^2(1-2x-x^2)(1-2x))$
573	1	{4213, 1342, 1324, 1423}	$(1-6x+13x^2-12x^3+7x^4-2x^5)/((1-x)(1-3x+2x^2-x^3)(1-3x+x^2))$
574	1	{4213, 1342, 1324, 1243}	$(1-8x+26x^2-44x^3+44x^4-29x^5+8x^6)/((1-x)^3(1-3x+2x^2-x^3)(1-3x+x^2))$
575	1	{4213, 1342, 1324, 1234}	$(1-6x+14x^2-14x^3+6x^4+3x^5-4x^6+2x^7)/((1-x)^3(1-3x+2x^2-x^3)(1-x-x^2))$
576	1	{4213, 1342, 4123, 1243}	$(1-5x+9x^2-7x^3+5x^4-2x^5-x^6+x^7)/((1-x)^3(1-3x+x^2-x^3))$
577	1	{4213, 1342, 4123, 1234}	$(1-8x+27x^2-48x^3+49x^4-29x^5+10x^6+2x^7-4x^8+x^9)/((1-x)^5(1-2x)^2)$
578	1	{4213, 1342, 1423, 1243}	$(1-5x+9x^2-8x^3+7x^4-3x^5)/((1-x)^3(1-3x+x^2-2x^3))$
579	1	{4213, 1342, 1423, 1234}	$(1-8x+27x^2-49x^3+55x^4-43x^5+28x^6-12x^7+4x^8-x^9)/((1-x)^5(1-2x-x^3)(1-2x))$
580	1	{4213, 1342, 1243, 1234}	$(1-5x+9x^2-6x^3+5x^4-3x^5-4x^6+x^7)/((1-x)^2(1-2x-x^3)(1-2x))$
581	1	†{2413, 2143, 3142, 1324}	

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
	2	†{4312, 3412, 4123, 1423}	
	3	†{3412, 3124, 4132, 4123}	
	4	†{3142, 1432, 1324, 1423}	
	5	†{3124, 1423, 1243, 1234}	$C(x)/(1-x^3C^4(x)/(1-x))$
582	1	{2413, 2143, 3142, 1234}	
	2	{2134, 3124, 1432, 1243}	$(1-x)(1-2x-x^3)/((1-3x)(1-x+x^2))$
583	1	{2413, 2143, 3124, 1342}	$(1-x)^4(1-2x)^2/(1-9x+33x^2-65x^3+74x^4-47x^5+12x^6+4x^7-4x^8)$
584	1	†{3142, 2143, 2431, 1324}	$(1-5x+9x^2-7x^3+x^4)C(x)/((1-x)^2(1-3x+x^2))-x^2/(1-x)^3$
585	1	{2413, 2143, 4132, 1234}	$(1-3x+2x^2+x^3+3x^4+2x^5-3x^6-2x^7-x^8-2x^9)/((1-x)(1-3x+x^2))$
586	1	{2413, 2143, 1342, 4123}	$(1-4x+5x^2-3x^3+3x^4)/((1-x)(1-4x+4x^2-3x^3+x^4))$
587	1	{2413, 2134, 4312, 1432}	
	2	{2134, 4312, 3142, 1243}	$(1-4x+7x^2-4x^3+5x^4+3x^5)/(1-x)^5$
588	1	{2413, 2134, 4312, 1342}	
	2	{3412, 3142, 4132, 1234}	$(1-6x+16x^2-22x^3+20x^4-9x^5+x^6)/(1-x)^7$
589	1	{2413, 2134, 3412, 4132}	$(1-8x+27x^2-48x^3+49x^4-30x^5+10x^6-2x^7)/((1-x)^5(1-2x)^2)$
590	1	{2413, 2134, 3142, 1432}	$(1-x)^3(1-4x+5x^2-3x^3)/(1-8x+26x^2-47x^3+51x^4-31x^5+8x^6+2x^7-x^8)$
591	1	{2413, 2134, 3142, 1243}	$(1-x)^2(1-3x+x^2)(1-2x)/(1-8x+24x^2-35x^3+26x^4-7x^5-3x^6+x^7)$
592	1	{2413, 2134, 3124, 1432}	$(1-x)^4/(1-5x+9x^2-9x^3+2x^4+x^6-x^7)$
593	1	{2413, 2134, 4132, 1432}	$(1-7x+19x^2-24x^3+15x^4-7x^5+2x^6+2x^7)/((1-x)^3(1-3x+x^2)(1-2x))$
594	1	{2413, 2134, 4132, 1342}	$(1-9x+34x^2-69x^3+82x^4-59x^5+24x^6-x^7-4x^8)/((1-x)^5(1-3x+x^2)(1-2x))$
595	1	{2413, 2134, 4132, 1324}	
	2	{3142, 4123, 1243, 1234}	$(1-10x+41x^2-88x^3+106x^4-74x^5+31x^6-7x^7+x^8)/((1-x)^3(1-3x+x^2)^2(1-2x))$
596	1	{2413, 2134, 4132, 1423}	$(1-7x+18x^2-19x^3+7x^4-2x^5+x^6)/((1-x)(1-3x+x^2)(1-2x)^2)$
597	1	{2413, 2134, 4132, 1243}	$(1-10x+41x^2-88x^3+106x^4-76x^5+41x^6-22x^7+9x^8-3x^9-2x^{10}+x^{11})/((1-x)^3(1-3x+x^2)^2(1-2x))$
598	1	{2413, 2134, 4132, 1234}	$(1-6x+12x^2-5x^3-7x^4+x^5+4x^7+2x^8)/((1-x)^2(1-x-x^2)(1-2x)(1-2x-x^2))$
599	1	{2413, 2134, 1432, 4123}	$(1-4x+5x^2-x^3+4x^4-3x^5-4x^6+2x^7+2x^8)/((1-3x+2x^2-x^3)(1-x)(1-x-x^2-x^3))$
600	1	{2413, 2134, 1342, 4123}	$(1-8x+26x^2-43x^3+39x^4-21x^5+7x^6)/((1-x)^4(1-3x+x^2)(1-2x))$
601	1	†{1243, 2143, 2413, 3142}	$(1-x^3C^3(x)-C(x)\sqrt{(1-x)(1-4x-x^3)-x(1-x)(1-3x-2x^2)C(x)})/(2x)$
602	1	{2413, 4312, 3412, 1342}	
	2	{2413, 4312, 3142, 1342}	
	3	∗{2413, 3412, 4132, 1342}	$(1-7x+17x^2-16x^3+5x^4-x^5)/((1-3x)(1-3x+x^2)(1-x)^2)$, [10]
603	1	∗{2413, 4312, 3142, 1324}	$(1-9x+33x^2-61x^3+58x^4-26x^5+5x^6)/((1-x)^2(1-2x)^4)$
604	1	{2413, 4312, 3142, 1234}	
	2	{2143, 2134, 4312, 1243}	$(1-4x+7x^2-4x^3+5x^4+4x^5+x^6+2x^7)/(1-x)^5$
605	1	{2413, 4312, 3124, 1432}	
	2	{3412, 3124, 1432, 1423}	$(1-7x+20x^2-29x^3+24x^4-13x^5+3x^6)/((1-x)^5(1-3x+x^2))$
606	1	{2413, 4312, 4132, 1342}	$(1-5x+8x^2-4x^3+2x^4+x^5)/((1-2x)(1-4x+4x^2-2x^3))$
607	1	{2413, 4312, 4132, 1234}	$(1-4x+7x^2-4x^3+5x^4+4x^5-3x^6-3x^7+5x^8-2x^9)/(1-x)^5$
608	1	{2413, 4312, 1432, 1342}	
	2	{3124, 4132, 1432, 1342}	$(1-5x+7x^2-x^4-x^5)/((1-x)(1-3x+x^2)(1-2x-x^2))$
609	1	{2413, 4312, 1432, 1324}	
	2	{2413, 4312, 1342, 1324}	
	3	∗{2143, 4312, 3142, 1324}	$(1-7x+20x^2-28x^3+21x^4-9x^5+x^6)/((1-x)^4(1-2x)^2)$, [10]
610	1	{2413, 4312, 1432, 1234}	$(1-2x+2x^2+2x^3+7x^4+13x^5+7x^6)/(1-x)^3$
611	1	{2413, 4312, 1342, 1243}	$(1-7x+20x^2-28x^3+21x^4-9x^5-x^6+2x^7)/((1-x)^4(1-2x)^2)$
612	1	†{3142, 2143, 2413, 2314}	$(1-3x+x^2-x^3-\sqrt{(1-3x+x^2-x^3)^2-4x(1-3x+x^2)^2})/(2x(1-3x+x^2))$
613	1	†{2413, 3412, 3142, 4123}	
	2	†{2413, 3142, 1432, 1243}	$(1-x^3/(1-x)^3-\sqrt{(1-x^3/(1-x)^3)^2-4x})/(2x)$, [9]
614	1	{2413, 3412, 3142, 1234}	
	2	{2134, 4312, 4132, 1432}	
	3	{2134, 4312, 1342, 1324}	$(1-6x+16x^2-22x^3+20x^4-8x^5+x^6)/(1-x)^7$
615	1	†{2413, 2143, 3241, 3124}	$(1-5x+9x^2-7x^3+3x^4-x(1-4x+5x^2-2x^3+x^4)C(x))/((1-2x)(1-4x+5x^2-3x^3-x(1-3x+3x^2-2x^3)C(x)))$
616	1	{2413, 3412, 3124, 1432}	$(1-7x+20x^2-29x^3+24x^4-13x^5+2x^6+2x^7-x^8)/((1-x)^5(1-3x+x^2))$
617	1	∗{2413, 3412, 3124, 1342}	$(1-5x+8x^2-3x^3)(1-6x+13x^2-13x^3+7x^4-x^5)/((1-x)^4(1-3x+x^2)^2(1-2x))$
618	1	∗{2413, 3412, 4132, 1324}	$(1-7x+19x^2-24x^3+15x^4-5x^5+2x^6)/((1-x)^3(1-3x+x^2)(1-2x))$
619	1	{2413, 3412, 4132, 1234}	
	2	{2134, 4312, 3412, 1342}	
	3	{2134, 3412, 4132, 1342}	$(1-6x+16x^2-22x^3+20x^4-10x^5+2x^6)/(1-x)^7$
620	1	∗{2413, 3412, 1342, 4123}	$(1-6x+13x^2-12x^3+5x^4)/((1-2x)(1-5x+8x^2-6x^3+x^4))$
621	1	{2413, 3142, 3124, 1342}	
	2	{2143, 2134, 3142, 1243}	$(1-3x+x^2)^2/((1-x)(1-6x+10x^2-4x^3+x^4))$
622	1	{2413, 3142, 3124, 1243}	$(1-x)(1-3x+x^2)(1-2x)^2/(1-9x+31x^2-52x^3+44x^4-17x^5+3x^6)$
623	1	†{2413, 3142, 4132, 1342}	
	2	†{4132, 1432, 1324, 1423}	
	3	†{4132, 1432, 1324, 1243}	
	4	†{1342, 4123, 1423, 1234}	$(1-2x-x^2-x(1-2x)C(x))/(1-3x+x^2-x(1-2x)C(x))$, [10]
624	1	†{2413, 3142, 4132, 1324}	
	2	†{2143, 3142, 4132, 1324}	
	3	†{2143, 3142, 4132, 1423}	
	4	†{3142, 3124, 4123, 1423}	
	5	†{3124, 1342, 4123, 1423}	
	6	†{1342, 1324, 4123, 1423}	$((1-2x)C(x)-x)/(1-3x+x^2)$
625	1	†{2314, 2413, 3241, 3142}	
	2	†{4312, 3412, 3142, 3124}	
	3	†{3142, 4132, 1432, 1342}	
	4	†{3124, 1324, 4123, 1423}	
	5	†{4132, 1432, 1342, 1324}	
	6	†{4132, 1432, 1342, 1423}	

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
	7	†{1432, 1342, 1324, 1423}	
	8	†{1432, 1324, 1423, 1243}	
	9	†{1342, 1324, 1423, 1243}	
	10	†{1342, 1423, 1243, 1234}	
	11	†{1324, 1423, 1243, 1234}	
	12	†{4123, 1423, 1243, 1234}	$1+x/\sqrt{1-4x}$, [28]
626	1	†{2431, 2413, 3142, 1243}	
	2	†{2413, 3142, 1324, 1423}	
	3	†{2143, 3142, 1342, 1324}	
	4	†{2143, 3142, 1324, 1243}	
	5	†{3412, 3142, 3124, 4132}	
	6	†{3412, 3142, 3124, 4123}	
	7	†{3142, 4132, 1432, 1324}	
	8	†{3142, 4132, 1342, 1324}	
	9	†{3142, 4132, 1342, 1243}	
	10	†{3142, 1342, 1324, 1243}	
	11	†{3124, 1342, 1324, 1423}	
	12	†{3124, 4123, 1423, 1234}	
	13	†{4132, 1432, 1423, 1243}	
	14	†{4132, 1342, 1324, 1423}	$C(x)+x^3C^5(x)/(1-x)$
627	1	{2413, 3142, 4132, 1234}	
	2	{2134, 3124, 1432, 4123}	$(1-5x+9x^2-6x^3+3x^4-x^5)/((1-x)^3(1-3x+x^2))$
628	1	†{2413, 3142, 1432, 1324}	
	2	†{2143, 3142, 1432, 1324}	
	3	†{2134, 3124, 1342, 1423}	
	4	†{2134, 3124, 1423, 1243}	
	5	†{3412, 4132, 4123, 1423}	
	6	†{3142, 1432, 1324, 1243}	
	7	†{3124, 1342, 1423, 1234}	$(1-x)^2(1-x^2C(x))C^2(x)/(1-x+x^3)$
629	1	{2413, 3142, 1432, 4123}	
	2	{2134, 1432, 1243, 1234}	$(1-2x-x^2-2x^3)/(1-3x-2x^3)$
630	1	†{2413, 3142, 1432, 1423}	
	2	†{2413, 3142, 1342, 1423}	
	3	†{2143, 1432, 1342, 1423}	
	4	†{2143, 1342, 1423, 1243}	
	5	†{2134, 1342, 1324, 1423}	
	6	†{2134, 1342, 1423, 1234}	
	7	†{4312, 3412, 3142, 4132}	
	8	†{1432, 1342, 1423, 1243}	
	9	†{1342, 1324, 1423, 1234}	$(1-x+x^2-\sqrt{1-6x+7x^2-2x^3+x^4})/(2x)$, [6]
631	1	{2413, 3142, 1432, 1234}	$(1-x)(1-2x-x^3)/(1-4x+4x^2-3x^3+2x^5+3x^6+2x^7+x^8)$
632	1	∗{2413, 3142, 1324, 4123}	$(1-8x+24x^2-33x^3+23x^4-12x^5+5x^6-x^7)/((1-3x+x^2)^2(1-3x+2x^2-x^3))$
633	1	†{2413, 3142, 4123, 1423}	
	2	†{2143, 1342, 1324, 1423}	$((1-x)^2-x^2C(x))/((1-x)^2-x(1-x+x^2)C(x))$, [9]
634	1	{2413, 3142, 4123, 1243}	
	2	∗{2143, 3142, 4123, 1423}	
	3	{2143, 3142, 4123, 1243}	
	4	{4312, 3412, 1432, 1423}	
	5	{4312, 3412, 1342, 1423}	
	6	∗{3412, 4132, 1432, 1423}	
	7	∗{3412, 4132, 1342, 1423}	$(1-6x+12x^2-9x^3+4x^4-x^5)/((1-4x+4x^2-2x^3)(1-3x+x^2))$
635	1	{2413, 3142, 4123, 1234}	$(1-6x+14x^2-16x^3+13x^4-7x^5+2x^6)/((1-x)(1-3x+2x^2-x^3)^2)$
636	1	†{2413, 3142, 1423, 1243}	$(1-3x+2x^2-x^3-\sqrt{(1-3x+2x^2-x^3)^2-4x(1-x)^2(1-2x)^2})/(2x(1-x)(1-2x))$
637	1	{2413, 3142, 1243, 1234}	$(1-x)^2(1-3x+2x^2-x^3)(1-2x)/(1-8x+25x^2-41x^3+39x^4-20x^5+5x^6)$
638	1	{2413, 3124, 4132, 1432}	
	2	{2413, 3124, 4132, 1342}	$(1-7x+18x^2-20x^3+10x^4-3x^5-x^6)/((1-x)^2(1-3x+x^2)^2)$
639	1	†{2413, 3124, 4132, 1423}	
	2	†{3142, 3124, 4132, 1423}	$(1-4x+3x^2+x^3+x^2(1-x)^2C(x))C(x)/((1-x)(1-3x+x^2))$, [9]
640	1	{2413, 3124, 4132, 1243}	$(1-10x+41x^2-88x^3+106x^4-72x^5+25x^6-3x^7-x^8)/((1-x)^3(1-3x+x^2)^2(1-2x))$
641	1	{2413, 3124, 4132, 1234}	$(1-7x+20x^2-29x^3+25x^4-14x^5+4x^6-2x^8)/((1-x)^3(1-3x+2x^2-x^3)(1-2x))$
642	1	{2413, 3124, 1432, 1342}	$(1-x)^2(1-2x-x^2)/(1-5x+7x^2-3x^3-2x^4+x^5)$
643	1	{2413, 3124, 1432, 1324}	
	2	{2143, 3142, 3124, 1432}	
	3	{3142, 3124, 1423, 1234}	$(1-x)^3(1-2x)/(1-6x+13x^2-14x^3+6x^4-x^5)$
644	1	{2413, 3124, 1432, 4123}	
	2	{3142, 1432, 1324, 4123}	$(1-5x+8x^2-4x^3+3x^4-2x^5)/((1-3x+2x^2-x^3)(1-3x+x^2))$
645	1	{2413, 3124, 1432, 1243}	$(1-x)^5(1-2x)/(1-8x+26x^2-46x^3+47x^4-26x^5+5x^6)$
646	1	{2413, 3124, 1432, 1234}	$(1-x)^3/(1-4x+5x^2-4x^3-2x^4+2x^6-2x^7)$
647	1	∗{2413, 3124, 1342, 1324}	
	2	∗{2134, 3142, 3124, 1423}	
	3	∗{3142, 3124, 1324, 1423}	
	4	{3124, 1432, 1324, 1423}	$(1-2x)^3/(1-7x+17x^2-17x^3+5x^4)$, [10]
648	1	∗{2413, 3124, 1342, 1423}	
	2	{2143, 2134, 3142, 1423}	
	3	{2143, 3142, 3124, 1243}	
	4	∗{2134, 3142, 1324, 1423}	
	5	{3142, 3124, 1342, 1423}	
	6	{3142, 3124, 1324, 1243}	
	7	{3142, 1342, 1324, 1234}	
	8	{3142, 1342, 1243, 1234}	
	9	{3124, 1432, 1342, 1324}	$(1-3x+x^2)(1-2x)/((1-5x+6x^2-x^3)(1-x))$
649	1	∗{2413, 3124, 1342, 1243}	$(1-2x)^2(1-x)^4/(1-9x+33x^2-65x^3+74x^4-48x^5+16x^6-3x^7)$
650	1	{2413, 3124, 1342, 1234}	$(1-2x)(1-x)^6/(1-9x+34x^2-72x^3+93x^4-74x^5+34x^6-9x^7+x^8)$
651	1	†{2413, 4132, 1432, 1324}	
	2	†{2413, 4132, 1342, 1324}	
	3	†{2143, 4132, 1432, 1324}	
	4	†{3142, 4132, 1432, 1243}	$C(x)+x^3C(x)^4/(1-2x)$, [10]

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
652	1	$\{2413, 4132, 1432, 1234\}$	$(1-6x+13x^2-11x^3+4x^4-5x^5+8x^7-2x^8)/((1-2x)(1-x)^2(1-3x+x^2))$
653	1	†$\{3142, 2314, 2431, 3421\}$	$(1-6x+14x^2-16x^3+10x^4-3x^5-x^6-x(1-x)^4(1-2x)C(x))/((1-2x)(1-x)^2((1-x+x^2)(1-2x)-x(1-x)^2C(x)))$
654	1	$\{2413, 4132, 1342, 1234\}$	$(1-8x+26x^2-43x^3+39x^4-21x^5+7x^6+2x^7-4x^8)/((1-2x)(1-x)^4(1-3x+x^2))$
655	1	∗$\{2413, 4132, 1324, 4123\}$	$(1-6x+11x^2-3x^3-4x^4-2x^5+x^6)/((1-2x)(1-2x-x^2)(1-3x+x^2))$
656	1	†$\{2413, 4132, 1324, 1423\}$	
	2	†$\{3142, 4132, 1324, 1423\}$	
	3	†$\{3124, 4123, 1243, 1234\}$	$C(x)+x^3C^4(x)/(1-2x)$, [10,27]
657	1	†$\{2413, 4132, 1324, 1243\}$	$C(x)+x^3(1-2x+2x^2)C(x)/((1-x)^4(1-2x))+x^4C^3(x)/(1-x)^3$
658	1	$\{2413, 4132, 1324, 1234\}$	$(1-8x+25x^2-36x^3+20x^4+3x^5-8x^6+3x^7+2x^8+2x^9)/((1-2x)(1-x)^3(1-3x+x^2)(1-x-x^2))$
659	1	∗$\{2413, 4132, 4123, 1234\}$	
	2	∗$\{2134, 3412, 3142, 1423\}$	
	3	∗$\{3412, 1342, 4123, 1243\}$	
	4	∗$\{3412, 1342, 4123, 1234\}$	$(1-6x+14x^2-14x^3+7x^4)/((1-2x)^2(1-x)^3)$, [10]
660	1	$\{2413, 4132, 1423, 1234\}$	$(1-9x+34x^2-69x^3+82x^4-59x^5+24x^6-3x^7)/((1-2x)(1-x)^5(1-3x+x^2))$
661	1	$\{2413, 1432, 1342, 4123\}$	$(1-3x+x^2-x^3+2x^4-x^5)/(1-4x+3x^2-2x^3+2x^4-x^5)$
662	1	$\{2413, 1432, 1324, 4123\}$	$(1-5x+8x^2-4x^3+3x^4-2x^5+x^6)/((1-3x+x^2)(1-3x+2x^2-x^3))$
663	1	$\{2413, 1432, 4123, 1234\}$	$(1-5x+9x^2-7x^3+6x^4-5x^5-2x^6+7x^7-5x^8+2x^9)/(1-3x+2x^2-x^3)^2$
664	1	∗$\{2413, 1342, 1324, 4123\}$	$(1-6x+12x^2-8x^3+2x^4-2x^5)/((1-x)(1-3x+x^2)^2)$
665	1	∗$\{2413, 1342, 4123, 1243\}$	$(1-6x+13x^2-13x^3+7x^4-3x^5)/((1-4x+3x^2-x^3)(1-x)^3)$
666	1	$\{2413, 1342, 4123, 1234\}$	$(1-9x+33x^2-63x^3+68x^4-44x^5+18x^6-3x^7)/((1-3x+x^2)^2(1-x)^4)$
667	1	$\{2143, 2134, 4312, 1342\}$	$(1-5x+11x^2-11x^3+9x^4-2x^5-3x^6+x^7)/(1-x)^6$
668	1	$\{2143, 2134, 3142, 1432\}$	$(1-x)(1-4x+5x^2-3x^3)/((1-4x+3x^2-x^3)(1-2x+2x^2))$
669	1	$\{2143, 2134, 3124, 1432\}$	$(1-x)^2(1-2x)/(1-5x+8x^2-6x^3-x^5)$
670	1	$\{2143, 2134, 4132, 1342\}$	
	2	∗$\{2143, 3412, 1432, 1423\}$	
	3	∗$\{3412, 3142, 1432, 1324\}$	
	4	∗$\{3412, 3142, 1432, 1243\}$	$(1-6x+13x^2-11x^3+4x^4-2x^5)/((1-3x+x^2)(1-x)^2(1-2x))$, [10]
671	1	$\{2143, 2134, 4132, 1324\}$	
	2	∗$\{2143, 3124, 4132, 1324\}$	
	3	∗$\{2143, 1324, 4123, 1423\}$	
	4	$\{2143, 4123, 1243, 1234\}$	
	5	$\{2134, 3142, 4132, 1324\}$	
	6	$\{2134, 3142, 4123, 1234\}$	$(1-8x+24x^2-32x^3+18x^4-5x^5+x^6)/((1-3x+x^2)^2(1-x)(1-2x))$
672	1	$\{2143, 2134, 4132, 1423\}$	$(1-6x+12x^2-7x^3-3x^5+x^6)/((1-3x+x^2)(1-2x)^2)$
673	1	$\{2143, 2134, 4132, 1243\}$	$(1-9x+31x^2-49x^3+33x^4-9x^5+8x^6-5x^7+x^8)/((1-3x+x^2)^2(1-2x)^2)$
674	1	$\{2143, 2134, 4132, 1234\}$	$(1-5x+7x^2+2x^3-5x^4-3x^5-3x^6+x^7)/((1-x)(1-x-x^2)(1-2x)(1-2x-x^2))$
675	1	$\{2143, 2134, 1432, 4123\}$	$(1-5x+8x^2-2x^3-5x^5-3x^6+5x^7-x^9)/((1-x)^3(1-x-x^2-x^3)(1-2x-x^2))$
676	1	$\{2143, 2134, 1432, 1234\}$	$(1-x-2x^2-4x^3-3x^4)/(1-2x-2x^2-4x^3-3x^4)$
677	1	$\{2143, 2134, 1342, 4123\}$	
	2	$\{2143, 3124, 1342, 4123\}$	$(1-6x+13x^2-11x^3+4x^4-3x^5)/((1-3x+x^2)(1-x)^2(1-2x))$
678	1	$\{2143, 2134, 4123, 1243\}$	$(1-6x+12x^2-6x^3-4x^4+2x^5+2x^7)/((1-3x+x^2)(1-x)(1-x-x^2)(1-2x))$
679	1	∗$\{2143, 4312, 3412, 1324\}$	$(1-6x+14x^2-14x^3+7x^4-6x^5+2x^6)/((1-x)^3(1-2x)^2)$
680	1	$\{2143, 4312, 3412, 1243\}$	$(1-5x+8x^2-2x^3-4x^5)/(1-2x)^3$
681	1	$\{2143, 4312, 3412, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+12x^5)/(1-x)^3$
682	1	$\{2143, 4312, 3142, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+14x^5+10x^6+4x^7)/(1-x)^3$
683	1	$\{2143, 4312, 3124, 1432\}$	$(1-5x+10x^2-8x^3+5x^4-2x^6)/((1-x)^4(1-2x))$
684	1	$\{2143, 4312, 3124, 1342\}$	$(1-4x+6x^2-2x^3+3x^4+x^5-2x^6)/((1-x)^3(1-2x))$
685	1	∗$\{2143, 4312, 3124, 1423\}$	$(1-6x+14x^2-15x^3+9x^4-5x^5-4x^6+2x^7)/((1-x)^4(1-3x+x^2))$
686	1	$\{2143, 4312, 3124, 1243\}$	
	2	$\{4312, 3124, 1432, 1243\}$	
	3	$\{4312, 1432, 1324, 4123\}$	$(1-7x+20x^2-28x^3+21x^4-10x^5+4x^7)/((1-x)^4(1-2x)^2)$
687	1	∗$\{2143, 4312, 4132, 1324\}$	
	2	$\{4312, 3142, 4123, 1243\}$	
	3	$\{3412, 3142, 1324, 1234\}$	
	4	$\{3412, 3142, 1243, 1234\}$	
	5	$\{3412, 3124, 4132, 1243\}$	$(1-7x+20x^2-28x^3+21x^4-9x^5)/((1-x)^4(1-2x)^2)$
688	1	$\{2143, 4312, 4132, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+14x^5+6x^6-2x^7)/(1-x)^3$
689	1	$\{2143, 4312, 1432, 1324\}$	$(1-9x+35x^2-75x^3+97x^4-79x^5+38x^6-7x^7)/((1-x)^6(1-2x)^2)$
690	1	$\{2143, 4312, 1432, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+13x^5+7x^6-9x^7-12x^8+8x^9)/(1-x)^3$
691	1	$\{2143, 4312, 1342, 1324\}$	$(1-8x+27x^2-48x^3+49x^4-32x^5+11x^6+6x^7-5x^8)/((1-x)^5(1-2x)^2)$
692	1	$\{2143, 4312, 1342, 4123\}$	$(1-4x+6x^2-2x^3+3x^4-3x^6)/((1-x)^3(1-2x))$
693	1	$\{2143, 4312, 1342, 1423\}$	$(1-6x+14x^2-14x^3+7x^4-2x^5-2x^6)/((1-x)^3(1-2x)^2)$
694	1	$\{2143, 4312, 1342, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+13x^5+9x^6-x^7-4x^8)/(1-x)^3$
695	1	∗$\{2143, 4312, 1324, 4123\}$	$(1-5x+10x^2-8x^3+5x^4-3x^5-6x^6)/((1-x)^4(1-2x))$
696	1	∗$\{2143, 4312, 1324, 1423\}$	$(1-8x+27x^2-48x^3+49x^4-30x^5+7x^6+3x^7)/((1-x)^5(1-2x)^2)$
697	1	$\{2143, 4312, 1324, 1243\}$	$(1-8x+27x^2-48x^3+49x^4-31x^5+8x^6+6x^7-x^8)/((1-x)^5(1-2x)^2)$
698	1	$\{2143, 4312, 1324, 1234\}$	$(1+x)(1-3x+5x^2-3x^3+10x^4+4x^5+7x^6-7x^7)/(1-x)^3$
699	1	$\{2143, 4312, 4123, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+14x^5+9x^6-5x^7)/(1-x)^3$
700	1	$\{2143, 4312, 1423, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+15x^5+14x^6+4x^7-x^8)/(1-x)^3$
701	1	$\{2143, 4312, 1243, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+16x^5+17x^6+6x^7)/(1-x)^3$
702	1	∗$\{2143, 3412, 3142, 1342\}$	
	2	∗$\{3412, 3142, 1342, 1324\}$	
	3	∗$\{3412, 3142, 1342, 1243\}$	$(1-6x+11x^2-5x^3)/((1-x)(1-3x)(1-3x+x^2))$, [1,10]

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
703	1	$*\{2143, 3412, 3142, 1324\}$	$(1-8x+25x^2-37x^3+26x^4-9x^5)/((1-x)^2(1-3x+x^2)(1-2x)^2)$
704	1	$*\{2143, 3412, 3142, 1243\}$	$(1-8x+23x^2-27x^3+11x^4-3x^5)/(1-3x+x^2)^3$
705	1	$\{2143, 3412, 3124, 1432\}$	$(1-5x+10x^2-8x^3+5x^4-2x^5-2x^6)/((1-x)^4(1-2x))$
706	1	$\{2143, 3412, 3124, 1342\}$	$(1-7x+20x^2-28x^3+21x^4-10x^5+4x^6)/((1-x)^4(1-2x)^2)$
707	1	$*\{2143, 3412, 3124, 1423\}$	$(1-7x+20x^2-29x^3+24x^4-14x^5+3x^6)/((1-x)^5(1-3x+x^2))$
708	1	$\{2143, 3412, 3124, 1243\}$	
	2	$\{3412, 3124, 1432, 1324\}$	$(1-8x+27x^2-48x^3+49x^4-31x^5+11x^6)/((1-x)^5(1-2x)^2)$
709	1	$*\{2143, 3412, 4132, 1342\}$	
	2	$\{4312, 3412, 3124, 1432\}$	$(1-6x+13x^2-11x^3+4x^4-3x^5+x^6)/((1-x)^2(1-2x)(1-3x+x^2))$, [9]
710	1	$*\{2143, 3412, 4132, 1324\}$	
	2	$*\{2143, 3412, 1432, 1324\}$	$(1-7x+19x^2-24x^3+15x^4-9x^5+2x^6)/((1-x)^3(1-2x)(1-3x+x^2))$, [9]
711	1	$*\{2143, 3412, 4132, 1423\}$	$(1-7x+19x^2-24x^3+15x^4-7x^5+x^6)/((1-x)^3(1-3x+x^2)(1-2x))$
712	1	$\{2143, 3412, 4132, 1243\}$	$(1-9x+32x^2-56x^3+50x^4-26x^5+15x^6-7x^7+x^8)/((1-x)^2(1-3x+x^2)^2(1-2x))$
713	1	$\{2143, 3412, 4132, 1234\}$	$(1-4x+7x^2-4x^3+5x^4-8x^6+7x^7-2x^8)/(1-x)^5$
714	1	$\{2143, 3412, 1432, 1234\}$	$(1-4x+7x^2-4x^3+5x^4-x^5-4x^6+3x^7)/(1-x)^5$
715	1	$\{2143, 3412, 1342, 4123\}$	
	2	$\{3412, 1432, 4123, 1243\}$	$(1-5x+10x^2-8x^3+5x^4-x^5)/((1-x)^4(1-2x))$
716	1	$*\{2143, 3412, 1324, 4123\}$	$(1-6x+15x^2-18x^3+13x^4-8x^5-x^6+2x^7)/((1-x)^5(1-2x))$
717	1	$*\{2143, 3412, 1324, 1423\}$	$(1-11x+52x^2-137x^3+220x^4-225x^5+150x^6-62x^7+11x^8)/((1-2x)^2(1-x)^5(1-3x+x^2))$
718	1	$*\{2143, 3412, 1324, 1243\}$	$(1-9x+34x^2-69x^3+82x^4-62x^5+30x^6-6x^7)/((1-2x)(1-x)^5(1-3x+x^2))$
719	1	$*\{2143, 3412, 4123, 1423\}$	
	2	$*\{3412, 4132, 1432, 1243\}$	$(1-9x+33x^2-62x^3+63x^4-37x^5+13x^6+x^7-x^8)/((1-x)^3(1-2x)^2(1-3x+x^2))$, [9]
720	1	$\{2143, 3412, 4123, 1243\}$	$(1-6x+14x^2-14x^3+7x^4-3x^5-x^6)/((1-2x)^2(1-x)^3)$
721	1	$*\{2143, 3412, 1423, 1243\}$	
	2	$\{4312, 3142, 3124, 1342\}$	
	3	$\{3124, 4132, 1342, 1423\}$	$(1-7x+18x^2-20x^3+10x^4-4x^5+x^6)/((1-3x+x^2)^2(1-x)^2)$, [10]
722	1	$\{2143, 3412, 1423, 1234\}$	$(1-5x+11x^2-11x^3+9x^4-2x^5-x^6+x^7)/(1-x)^6$
723	1	$\{2143, 3142, 3124, 1342\}$	
	2	$*\{2143, 3124, 1324, 1423\}$	
	3	$\{3142, 3124, 1432, 1324\}$	
	4	$\{3142, 3124, 1342, 1243\}$	
	5	$\{3142, 3124, 1342, 1234\}$	
	6	$\{3142, 3124, 1423, 1243\}$	$(1-2x)^2(1-x)/(1-6x+12x^2-10x^3+2x^4)$
724	1	$\{2143, 3142, 4132, 1234\}$	$(1-5x+8x^2-3x^3+x^4-2x^5+x^6)/((1-2x)(1-x)(1-3x+x^2))$
725	1	$\{2143, 3142, 1432, 4123\}$	
	2	$\{2143, 4132, 1342, 4123\}$	$(1-5x+9x^2-7x^3+5x^4-3x^5+x^6)/((1-3x+x^2-x^3)(1-x)^3)$
726	1	$\dagger\{2143, 3142, 1432, 1423\}$	
	2	$\dagger\{2143, 3142, 1342, 1423\}$	
	3	$\dagger\{3142, 1432, 1423, 1243\}$	$(1-x-\sqrt{1-6x+9x^2-8x^3})(1-x)/(2x(1-2x+2x^2))$, [10]
727	1	$\{2143, 3142, 1432, 1234\}$	$(1-2x-x^3)/(1-3x+x^2-2x^3-2x^4)$
728	1	$\{2143, 3142, 1342, 1234\}$	
	2	$\{4312, 3142, 1342, 4123\}$	$(1-x)(1-3x+2x^2-x^3)/(1-5x+8x^2-7x^3+2x^4)$
729	1	$\dagger\{2143, 3142, 1324, 1423\}$	
	2	$\dagger\{3412, 3142, 4123, 1423\}$	
	3	$\dagger\{3142, 1324, 1423, 1243\}$	
	4	$\dagger\{3124, 1342, 1423, 1243\}$	$(1-x)(1-2x)/((1-x)(1-2x)-x(1-3x+3x^2)C(x))$, [10]
730	1	$\{2143, 3142, 1324, 1234\}$	$(1-2x)^2/((1-x)(1-4x+3x^2-x^4))$
731	1	$\{2143, 3142, 4123, 1234\}$	$(1-5x+9x^2-7x^3+6x^4-3x^5+x^6)/(1-3x+2x^2-x^3)^2$
732	1	$\dagger\{2143, 3142, 1423, 1243\}$	
	2	$\dagger\{3142, 1342, 1423, 1243\}$	$(1-\sqrt{1-4x(1-x)^2/(1-2x)})/(2x(1-x)^2/(1-2x))$, [9]
733	1	$\{2143, 3142, 1423, 1234\}$	
	2	$\{3142, 1432, 1243, 1234\}$	
	3	$\{3124, 1432, 1342, 1234\}$	$(1-3x+2x^2-x^3)/(1-4x+4x^2-3x^3-x^4)$
734	1	$\{2143, 3142, 1243, 1234\}$	$(1-2x)(1-3x+2x^2-x^3)/((1-x)^2(1-4x+3x^2-x^3))$
735	1	$\{2143, 3124, 4132, 1342\}$	$(1-7x+19x^2-24x^3+15x^4-7x^5+4x^6-2x^7)/((1-2x)(1-x)^3(1-3x+x^2))$
736	1	$*\{2143, 3124, 4132, 1423\}$	$(1-6x+12x^2-8x^3+2x^4-3x^5)/((1-x)(1-3x+x^2)^2)$
737	1	$\{2143, 3124, 4132, 1243\}$	$(1-9x+31x^2-49x^3+33x^4-8x^5+4x^6-x^7)/((1-2x)^2(1-3x+x^2)^2)$
738	1	$\{2143, 3124, 4132, 1234\}$	$(1-6x+14x^2-15x^3+10x^4-6x^5+x^7-x^9)/((1-2x)(1-x)^2(1-3x+2x^2-x^3))$
739	1	$\{2143, 3124, 1432, 1342\}$	$(1-2x-x^2)(1-x)/(1-4x+3x^2-2x^4)$
740	1	$\{2143, 3124, 1432, 4123\}$	$(1-6x+13x^2-10x^3+x^4-x^5+x^6)/((1-2x-x^2)(1-2x)(1-x)^3)$
741	1	$\{2143, 3124, 1432, 1423\}$	$(1-2x)(1-x)^3(1-x-x^2)/(1-7x+18x^2-21x^3+7x^4+8x^5-7x^6)$
742	1	$\{2143, 3124, 1432, 1243\}$	
	2	$\{3124, 1432, 1342, 1243\}$	$(1-3x+x^2)/(1-4x+3x^2-x^3-x^4)$
743	1	$\{2143, 3124, 1432, 1234\}$	$(1-2x-x^3+x^4)/(1-3x+x^2-2x^3-x^4-x^5+2x^6+2x^7+2x^8)$
744	1	$\{2143, 3124, 1342, 1324\}$	$(1-4x+3x^2+x^3)/((1-x)^2(1-3x-x^2))$
745	1	$\{2143, 3124, 1342, 1423\}$	$(1-2x)^2(1-x)/(1-6x+12x^2-10x^3+2x^4+2x^5)$
746	1	$\{2143, 3124, 1342, 1243\}$	$(1-4x+4x^2-x^3-x^4)/(1-5x+7x^2-4x^3-x^4+x^5)$
747	1	$\{2143, 3124, 1342, 1234\}$	$(1-3x+2x^2-x^3-2x^4)/(1-4x+4x^2-3x^3-3x^4+2x^5)$
748	1	$\{2143, 3124, 4123, 1243\}$	
	2	$\{3124, 1432, 1324, 4123\}$	$(1-6x+12x^2-7x^3-2x^5)/((1-2x)^2(1-3x+x^2))$
749	1	$\{2143, 3124, 1423, 1243\}$	$(1-2x)^3/((1-6x+11x^2-6x^3-x^4)(1-x))$
750	1	$\{2143, 3124, 1423, 1234\}$	$(1-2x)(1-x)/(1-4x+4x^2-2x^3-2x^4)$
751	1	$\{2143, 4132, 1432, 1234\}$	$(1-5x+8x^2-3x^3+x^4-4x^5-2x^6+4x^7-x^8)/((1-2x)(1-x)(1-3x+x^2))$
752	1	$\dagger\{2143, 4132, 1342, 1324\}$	$C(x)+x^4C^5(x)/(1-x)^2+x^3C^2(x)(1+xC(x))/(1-x)^2$
753	1	$\dagger\{2143, 4132, 1342, 1423\}$	$(C(x)+x^4C^3(x)/(1-x)^2)/(1-x^3C^3(x)/(1-x))$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
754	1	$\{2143, 4132, 1342, 1234\}$	$(1-6x+13x^2-11x^3+4x^4-4x^5+x^6+4x^7-3x^8-x^9+x^{10})/((1-3x+x^2)(1-x)^2(1-2x))$
755	1	$*\{2143, 4132, 1324, 4123\}$	$(1-7x+17x^2-14x^3-x^4-x^5+2x^6+x^7)/((1-2x-x^2)(1-3x+x^2)(1-x)(1-2x))$
756	1	$\dagger\{2143, 4132, 1324, 1243\}$	$C(x)+x^4C^5(x)/(1-x)+x^3C^3(x)/(1-2x)$
757	1	$\{2143, 4132, 1324, 1234\}$	$(1-5x+7x^2+x^3-3x^4-3x^5-5x^6+x^8)/((1-3x+x^2)(1-x-x^2)(1-2x))$
758	1	$\{2143, 4132, 4123, 1234\}$	$(1-4x+5x^2+2x^4+x^5-2x^6+x^7)/((1-x)(1-2x)^2)$
759	1	$\{2143, 4132, 1423, 1234\}$	$(1-5x+8x^2-3x^3+x^4-3x^5-5x^6+4x^7-x^8-x^9)/((1-3x+x^2)(1-x)(1-2x))$
760	1	$\{2143, 4132, 1243, 1234\}$	$(1-4x+4x^2+x^3+2x^4+2x^5-x^6)/((1-3x+x^2)(1-2x))$
761	1	$\{2143, 1432, 1342, 4123\}$	$(1-x-x^2-x^3)(1-2x)/((1-x)(1-3x))$
762	1	$\{2143, 1432, 1324, 4123\}$	$(1-4x+4x^2+x^3+x^4-x^5)(1-2x)/((1-2x-x^2)(1-3x+x^2)(1-x)^2)$
763	1	$\dagger\{2134, 2143, 1324, 3214\}$	$C(x)/(1-x^3C^3(x)(1+xC^3(x))/(1-x-x^2C^3(x)))$
764	1	$\{2143, 1432, 1324, 1234\}$	$(1-3x+x^2-x^3+x^4)(1+x+x^2)/(1-3x-3x^3+2x^4+x^6)$
765	1	$\{2143, 1432, 4123, 1234\}$	$(1-3x+4x^3+5x^4-x^5-8x^6-3x^7)/(1-2x-x^2)^2$
766	1	$\{2143, 1432, 1423, 1234\}$	$(1-2x-2x^2-x^3+2x^4+x^5)/((1-x)(1-2x-3x^2-3x^3-x^4))$
767	1	$\{2143, 1432, 1243, 1234\}$	$(1-2x-2x^2-2x^3+x^4)/(1-3x-x^2-x^3+2x^4)$
768	1	$\{2143, 1342, 1324, 4123\}$	$(1-7x+18x^2-20x^3+10x^4-6x^5+4x^6-x^7)/((1-x)^2(1-3x+x^2)^2)$
769	1	$\{2143, 1342, 4123, 1423\}$	
	2	$\{2143, 1342, 4123, 1243\}$	
	3	$\{3412, 4132, 1432, 4123\}$	
	4	$\{1432, 1342, 4123, 1243\}$	$(1-4x+4x^2-x^3+x^4)/((1-x)(1-4x+3x^2-x^3))$
770	1	$\{2143, 1342, 4123, 1234\}$	$(1-2x)(1-4x+4x^2+2x^4-x^5)/((1-x)(1-3x+x^2)^2)$
771	1	$\{2143, 1342, 1423, 1234\}$	$(1-4x+3x^2+2x^4)/(1-5x+6x^2-2x^3+2x^4)$
772	1	$\{2143, 1324, 4123, 1243\}$	
	2	$*\{2134, 3142, 1324, 4123\}$	$(1-5x+7x^2-2x^4)(1-2x)/((1-x)(1-x-x^2)(1-3x+x^2)^2)$, [9]
773	1	$\{2143, 4123, 1423, 1234\}$	
	2	$\{2134, 3142, 4132, 1243\}$	$(1-6x+12x^2-8x^3+2x^4-3x^5+x^6)/((1-x)(1-3x+x^2)^2)$
774	1	$\{2134, 4312, 3412, 3142\}$	$(1-7x+18x^2-18x^3+4x^4+x^6)/(1-2x)^4$
775	1	$\{2134, 4312, 3412, 4132\}$	$(1-6x+13x^2-10x^3+2x^4-2x^5-3x^6+x^7)/((1-x)(1-2x)^3)$
776	1	$\{2134, 4312, 3412, 1432\}$	$(1-4x+7x^2-4x^3+5x^4+2x^5-3x^6-x^7)/(1-x)^5$
777	1	$\{2134, 4312, 3412, 1243\}$	$(1-3x+4x^2+5x^4+6x^5-x^7)/(1-x)^4$
778	1	$\{2134, 4312, 3142, 1342\}$	
	2	$\{4312, 3412, 1342, 1234\}$	
	3	$\{3412, 3124, 4132, 1234\}$	
	4	$\{3412, 4132, 1342, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-9x^5+2x^6)/(1-x)^7$
779	1	$\{2134, 4312, 3142, 1324\}$	$(1-9x+35x^2-75x^3+97x^4-80x^5+39x^6-6x^7+x^8)/((1-x)^6(1-2x)^2)$
780	1	$\{2134, 4312, 3142, 1423\}$	$(1-8x+27x^2-48x^3+49x^4-29x^5+7x^6)/((1-x)^5(1-2x)^2)$
781	1	$\{2134, 4312, 3142, 1234\}$	
	2	$\{4312, 3142, 1243, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5-2x^6-x^7-x^8)/(1-x)^5$
782	1	$\{2134, 4312, 4132, 1342\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5+x^7)/(1-x)^5$
783	1	$\{2134, 4312, 4132, 1324\}$	$(1-7x+21x^2-33x^3+31x^4-17x^5-3x^6+4x^7)/((1-x)^6(1-2x))$
784	1	$\{2134, 4312, 4132, 1423\}$	$(1-9x+35x^2-75x^3+97x^4-80x^5+39x^6-6x^7+2x^8-2x^9)/((1-x)^6(1-2x)^2)$
785	1	$\{2134, 4312, 4132, 1243\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-6x^6+2x^7)/(1-x)^5$
786	1	$\{2134, 4312, 4132, 1234\}$	$(1-3x+4x^2+5x^4+9x^5-9x^7+3x^8)/(1-x)^4$
787	1	$\{2134, 4312, 1432, 1342\}$	
	2	$\{4312, 3142, 1324, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5-x^7-x^8)/(1-x)^5$
788	1	$\{2134, 4312, 1432, 1324\}$	$(1-5x+11x^2-11x^3+9x^4-4x^6+x^7)/(1-x)^6$
789	1	$\{2134, 4312, 1432, 4123\}$	$(1-5x+11x^2-11x^3+9x^4-2x^5-6x^6+5x^7-x^8)/(1-x)^6$
790	1	$\{2134, 4312, 1432, 1423\}$	$(1-6x+16x^2-22x^3+20x^4-9x^5-x^6+3x^7-x^8)/(1-x)^7$
791	1	$\{2134, 4312, 1432, 1243\}$	$(1-3x+4x^2+5x^4+7x^5-x^6-x^7)/(1-x)^4$
792	1	$\{2134, 4312, 1432, 1234\}$	$(1-2x+2x^2+2x^3+7x^4+14x^5+8x^6-4x^7-11x^8)/(1-x)^3$
793	1	$\{2134, 4312, 1342, 4123\}$	$(1-5x+11x^2-11x^3+9x^4-x^5-x^6+x^7)/(1-x)^6$
794	1	$\{2134, 4312, 1342, 1423\}$	$(1-7x+22x^2-38x^3+42x^4-28x^5+11x^6-2x^7)/(1-x)^8$
795	1	$\{2134, 4312, 1342, 1243\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-7x^6-x^7+2x^8)/(1-x)^5$
796	1	$\{2134, 4312, 1342, 1234\}$	$(1-5x+11x^2-11x^3+9x^4-2x^6-2x^7+x^8)/(1-x)^6$
797	1	$\{2134, 4312, 1324, 1243\}$	$(1-5x+11x^2-11x^3+9x^4-7x^6+3x^8)/(1-x)^6$
798	1	$\{2134, 4312, 4123, 1243\}$	$(1-5x+11x^2-11x^3+9x^4-x^5-7x^6+2x^7+3x^8-x^9)/(1-x)^6$
799	1	$\{2134, 4312, 1423, 1243\}$	$(1-5x+11x^2-11x^3+9x^4-4x^6)/(1-x)^6$
800	1	$\{2134, 4312, 1243, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5-8x^6-6x^7+2x^8+4x^9)/(1-x)^5$
801	1	$\{2134, 3412, 3142, 4132\}$	
	2	$\{4312, 3142, 1432, 1243\}$	$(1-7x+19x^2-23x^3+12x^4-3x^5)/((1-x)^2(1-2x)^3)$
802	1	$\{2134, 3412, 3142, 1432\}$	
	2	$\{2134, 3412, 1432, 1423\}$	$(1-5x+10x^2-7x^3+3x^4)(1-x+x^2)/(1-x)^7$
803	1	$\{2134, 3412, 3142, 1243\}$	$(1-8x+28x^2-54x^3+64x^4-49x^5+22x^6-7x^7)/((1-x)^7(1-2x))$
804	1	$\{2134, 3412, 3124, 4132\}$	$(1-7x+19x^2-23x^3+12x^4-4x^5+x^6)/((1-x)^2(1-2x)^3)$
805	1	$\{2134, 3412, 3124, 1432\}$	$(1-5x+11x^2-11x^3+9x^4-3x^5-2x^6+x^7)/(1-x)^6$
806	1	$\{2134, 3412, 4132, 1432\}$	
	2	$\{3412, 4132, 1432, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+2x^5-x^6-x^7)/(1-x)^5$
807	1	$\{2134, 3412, 4132, 1324\}$	$(1-7x+21x^2-33x^3+31x^4-19x^5+x^6+5x^7-2x^8)/((1-x)^6(1-2x))$
808	1	$\{2134, 3412, 4132, 4123\}$	$(1-7x+19x^2-23x^3+12x^4-3x^5-x^6+x^7)/((1-x)^2(1-2x)^3)$
809	1	$\{2134, 3412, 4132, 1423\}$	$(1-9x+35x^2-75x^3+97x^4-81x^5+44x^6-13x^7+3x^8)/((1-x)^6(1-2x)^2)$
810	1	$\{2134, 3412, 4132, 1243\}$	$(1-5x+11x^2-11x^3+9x^4-4x^5-2x^6+4x^7-x^8)/(1-x)^6$
811	1	$\{2134, 3412, 4132, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+2x^5)/(1-x)^5$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
812	1	$\{2134, 3412, 1432, 4123\}$	$(1-4x+7x^2-4x^3+5x^4+x^5-6x^6-x^7+2x^8)/(1-x)^5$
813	1	$\{2134, 3412, 1432, 1243\}$	$(1-4x+7x^2-4x^3+5x^4-2x^6)/(1-x)^5$
814	1	$\{2134, 3412, 1432, 1234\}$	$(1-4x+6x^2-x^4)(1+x^2)/(1-x)^5$
815	1	$*\{2134, 3412, 1342, 4123\}$	$(1-5x+10x^2-8x^3+5x^4+x^5)/((1-x)^4(1-2x))$
816	1	$*\{2134, 3412, 1342, 1423\}$	$(1-8x+28x^2-54x^3+64x^4-47x^5+21x^6-4x^7)/((1-x)^7(1-2x))$
817	1	$*\{2134, 3412, 1324, 1243\}$	$(1-6x+15x^2-18x^3+13x^4-5x^5-4x^6-4x^7)/((1-x)^5(1-2x))$
818	1	$*\{2134, 3412, 4123, 1243\}$	$(1-6x+15x^2-18x^3+13x^4-6x^5-4x^6-x^7+2x^8)/((1-x)^5(1-2x))$
819	1	$*\{2134, 3412, 1423, 1243\}$	$(1-7x+21x^2-33x^3+31x^4-18x^5+2x^6)/((1-x)^6(1-2x))$
820	1	$*\{2134, 3412, 1243, 1234\}$	$(1-7x+21x^2-33x^3+31x^4-18x^5+3x^6-2x^7)/((1-x)^6(1-2x))$
821	1	$\{2134, 3142, 3124, 1432\}$	$(1-x)^4/(1-5x+9x^2-9x^3+2x^4-x^5)$
822	1	$\{2134, 3142, 4132, 1423\}$	
	2	$*\{2134, 3142, 4123, 1423\}$	$(1-6x+12x^2-7x^3-x^5)/((1-2x)^2(1-3x+x^2))$, [9]
823	1	$\{2134, 3142, 4132, 1234\}$	$(1-6x+12x^2-5x^3-7x^4+2x^5+3x^6-x^7-2x^8)/((1-x)^2(1-2x)(1-2x-x^2)(1-x-x^2))$
824	1	$\{2134, 3142, 1432, 1342\}$	
	2	$\{2134, 3142, 1432, 1423\}$	
	3	$\{3142, 1432, 1342, 1234\}$	$(1-3x+2x^2-x^3)^2/(1-7x+18x^2-24x^3+20x^4-9x^5+3x^6)$
825	1	$\{2134, 3142, 1432, 1324\}$	$(1-x)^2(1-2x)^2/(1-7x+18x^2-22x^3+12x^4-x^6)$
826	1	$\{2134, 3142, 1432, 4123\}$	$(1-5x+9x^2-6x^3+5x^4-6x^5-x^7+x^8)/((1-x)^2(1-x-x^2-x^3)(1-3x+2x^2-x^3))$
827	1	$\{2134, 3142, 1432, 1243\}$	$(1-3x+2x^2-x^3)/(1-4x+4x^2-3x^3-x^4+x^5)$
828	1	$\{2134, 3142, 1432, 1234\}$	$(1-x-x^2-x^3)^2/(1-3x+x^4+x^5+5x^6+4x^7+2x^8)$
829	1	$\{2134, 3142, 1342, 1243\}$	$(1-x)(1-2x)(1-3x+2x^2-x^3)/(1-7x+18x^2-23x^3+16x^4-5x^5+x^6)$
830	1	$\{2134, 3142, 1324, 1243\}$	
	2	$\{2134, 3142, 1243, 1234\}$	$(1-2x)^3/((1-x)^2(1-5x+6x^2-x^4))$
831	1	$\{2134, 3142, 4123, 1243\}$	$(1-7x+18x^2-18x^3+2x^4+4x^5+3x^7-3x^8-x^9)/((1-x)^2(1-2x)(1-3x+x^2)(1-x-x^2))$
832	1	$\{2134, 3142, 1423, 1243\}$	$(1-2x)(1-3x+2x^2-x^3)/(1-6x+12x^2-11x^3+5x^4)$
833	1	$\{2134, 3124, 4132, 1432\}$	$(1-5x+10x^2-9x^3+7x^4-x^5)/((1-x)^3(1-3x+2x^2-x^3))$
834	1	$\{2134, 3124, 4132, 1342\}$	$(1-6x+15x^2-19x^3+16x^4-8x^5+2x^6+x^7)/((1-x)^4(1-3x+2x^2-x^3))$
835	1	$\{2134, 3124, 4132, 1324\}$	$(1-8x+26x^2-44x^3+44x^4-28x^5+6x^6)/((1-x)^3(1-3x+x^2)(1-3x+2x^2-x^3))$
836	1	$\{2134, 3124, 4132, 1423\}$	$(1-8x+26x^2-43x^3+40x^4-23x^5+8x^6-2x^7)/((1-x)^2(1-2x)^2(1-3x+2x^2-x^3))$
837	1	$\{2134, 3124, 4132, 1243\}$	$(1-8x+27x^2-50x^3+59x^4-49x^5+26x^6-9x^7+x^8)/((1-x)^3(1-3x+2x^2-x^3)^2)$
838	1	$\{2134, 3124, 4132, 1234\}$	$(1-7x+20x^2-29x^3+26x^4-17x^5+7x^6-5x^7+2x^8)/((1-x)^4(1-2x-x^3)(1-2x))$
839	1	$\{2134, 3124, 1432, 1342\}$	$(1-x)(1-2x-x^3)/(1-4x+4x^2-3x^3-x^5)$
840	1	$\{2134, 3124, 1432, 1324\}$	$(1-x)^2(1-2x-x^3)/(1-5x+8x^2-7x^3+3x^4-3x^5+x^6)$
841	1	$\{2134, 3124, 1432, 1234\}$	$(1-2x-x^3+x^4)/(1-3x+x^2-2x^3-x^4-3x^5+2x^6)$
842	1	$\dagger\{2134, 3124, 1342, 4123\}$	
	2	$\dagger\{3124, 1342, 4123, 1234\}$	$((1-x)(1-x+x^2)C(x)-x)/(1-x)^3$, [9]
843	1	$\dagger\{2134, 2314, 1423, 1243\}$	$(1-x-x(1-x+x^2+x^3)C(x))/(1-2x+x^2-x^3-x^4-x(1-x+x^2+x^3)C(x))$
844	1	$\{2134, 4132, 1432, 1342\}$	$(1-8x+25x^2-37x^3+26x^4-9x^5+4x^6+x^7-4x^8)/((1-x)^2(1-2x)^2(1-3x+x^2))$
845	1	$\{2134, 4132, 1432, 1324\}$	
	2	$\{3124, 4132, 1423, 1243\}$	
	3	$\{4132, 1432, 1324, 4123\}$	$(1-7x+18x^2-19x^3+7x^4-x^5)/((1-x)(1-2x)^2(1-3x+x^2))$
846	1	$\{2134, 4132, 1432, 4123\}$	$(1-6x+14x^2-13x^3+3x^4+4x^5-5x^6+x^7)/((1-x)^4(1-2x)(1-x-x^2))$
847	1	$\{2134, 4132, 1432, 1423\}$	$(1-7x+18x^2-19x^3+7x^4-3x^5+3x^6+x^7)/((1-x)(1-2x)^2(1-3x+x^2))$
848	1	$\{2134, 4132, 1432, 1243\}$	$(1-5x+8x^2-3x^3+x^4-3x^5)/((1-x)(1-2x)(1-3x+x^2))$
849	1	$\{2134, 4132, 1432, 1234\}$	$(1-3x+6x^3+4x^4-2x^5-7x^6+x^7+2x^8)/((1-x-x^2)^2(1-2x-x^2))$
850	1	$\{2134, 4132, 1342, 4123\}$	$(1-6x+14x^2-13x^3+3x^4+4x^5-3x^6+3x^7-x^9)/((1-x)^4(1-2x)(1-x-x^2))$
851	1	$\{2134, 4132, 1342, 1423\}$	$(1-7x+18x^2-19x^3+7x^4-2x^5+3x^6)/((1-x)(1-2x)^2(1-3x+x^2))$
852	1	$\{2134, 4132, 1342, 1243\}$	$(1-7x+19x^2-24x^3+15x^4-6x^5+2x^6-x^7)/((1-x)^3(1-2x)(1-3x+x^2))$
853	1	$\{2134, 4132, 1342, 1234\}$	$(1-5x+7x^2+3x^3-8x^4-x^5+4x^6+3x^7-x^8-x^9)/((1-x)^2(1-x-x^2)^2(1-2x-x^2))$
854	1	$\{2134, 4132, 1324, 4123\}$	$(1-8x+25x^2-35x^3+15x^4+13x^5-18x^6+2x^7+8x^8-x^{10})/((1-x)^4(1-2x)(1-x-x^2)(1-2x-x^2))$
855	1	$\{2134, 4132, 1324, 1423\}$	$(1-8x+25x^2-37x^3+26x^4-7x^5-x^6)/((1-x)^2(1-2x)^2(1-3x+x^2))$
856	1	$\{2134, 4132, 1324, 1243\}$	$(1-7x+19x^2-24x^3+15x^4-4x^5-3x^6+2x^7)/((1-x)^3(1-2x)(1-3x+x^2))$
857	1	$\{2134, 4132, 1324, 1234\}$	$(1-4x+3x^2+6x^3-2x^4-x^5+x^6-5x^7-3x^8)/((1-x)(1-x-x^2)^2(1-2x-x^2))$
858	1	$\{2134, 4132, 4123, 1423\}$	$(1-9x+33x^2-60x^3+51x^4-7x^5-17x^6+2x^7+11x^8-4x^9)/((1-x)^3(1-2x)^3(1-x-x^2))$
859	1	$\{2134, 4132, 4123, 1243\}$	$(1-8x+25x^2-34x^3+10x^4+20x^5-18x^6+4x^7+4x^8-5x^9-2x^{10}+2x^{11})/((1-x)^3(1-2x)^2(1-x-x^2)^2)$
860	1	$\{2134, 4132, 4123, 1234\}$	$(1-8x+26x^2-41x^3+29x^4+x^5-19x^6+10x^7+4x^8-2x^9)/((1-x)^4(1-2x)^2(1-x-x^2))$
861	1	$\{2134, 4132, 1423, 1243\}$	$(1-6x+13x^2-11x^3+4x^4-3x^5-x^7)/((1-x)^2(1-2x)(1-3x+x^2))$
862	1	$\{2134, 4132, 1423, 1234\}$	$(1-6x+12x^2-4x^3-11x^4+7x^5+5x^6-4x^7-2x^8+2x^9+x^{10})/((1-x)^3(1-x-x^2)^2(1-2x-x^2))$
863	1	$\{2134, 4132, 1243, 1234\}$	$(1-7x+18x^2-17x^3-2x^4+10x^5-4x^6-2x^7+6x^8+x^9-2x^{10})/((1-x)^3(1-2x)(1-x-x^2)(1-2x-x^2))$
864	1	$\{2134, 1432, 1342, 4123\}$	$(1-3x+x^2+2x^3+5x^4+2x^5-x^6+x^8)/((1-x-x^2-x^3)(1-3x+x^2))$
865	1	$\{2134, 1432, 1342, 1423\}$	$(1-4x+3x^2-x^3+3x^4+x^5+x^6)/((1-2x+x^2-x^3)(1-3x-x^2-x^3))$
866	1	$\{2134, 1432, 1324, 4123\}$	$(1-5x+8x^2-2x^3-2x^4-3x^6+2x^7)/((1-x)^2(1-x-x^2)(1-3x+x^2))$
867	1	$\{2134, 1432, 1324, 1234\}$	$(1-2x-2x^2-x^3+x^6)/(1-3x-x^2+x^6)$
868	1	$\{2134, 1432, 4123, 1423\}$	$(1-5x+8x^2-3x^3+2x^4-4x^5-x^6+x^7)/((1-x)^2(1-x-x^2-x^3)(1-3x+x^2))$
869	1	$\{2134, 1432, 4123, 1243\}$	$(1-4x+4x^2+x^3+3x^4-4x^5-5x^6+2x^7+2x^8+x^9)/((1-x)(1-x-x^2-x^3)(1-3x+x^2))$
870	1	$\{2134, 1432, 4123, 1234\}$	$(1-3x+x^2+2x^3+5x^4+2x^5-4x^6-x^7-x^8+x^9)/((1-x-x^2-x^3)(1-3x+x^2))$
871	1	$\{2134, 1432, 1423, 1243\}$	
	2	$\{3142, 1432, 1342, 4123\}$	$(1-3x+x^2-x^3+x^4)/(1-4x+3x^2-2x^3+x^4)$
872	1	$\{2134, 1432, 1423, 1234\}$	$(1-x)(1+x+x^2)(1-2x-2x^2-x^3)/(1-3x-x^2-x^3+3x^4+2x^5+x^6)$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
873	1	†{2134, 1342, 1324, 4123}	$C(x)+x^3(1+x)(1+xC^3(x))C(x)/((1-x)^2(1-x-x^2))$
874	1	†{2134, 1342, 4123, 1423}	
	2	†{2134, 4123, 1423, 1243}	$(x^3(1+x)+(1-2x)(1-x)-x(1-2x)C(x))/((1-2x)(1-2x-x(1-x)C(x)))$, [9]
875	1	†{2134, 1342, 4123, 1243}	$C(x)+x^3C^2(x)(1-x-2x^2+x^3+2x^4-3x^5+x^6)/((1-2x)(1-x)^3)$
876	1	†{2134, 1342, 1423, 1243}	$(1-x-x^2(1+x)C(x))C(x)/(1-x-x^2(1+x)C^2(x))$
877	1	†{2134, 1324, 4123, 1243}	$C(x)+x^3C^3(x)(1-x^2-x^4)/((1-x)^2(1-x-x^2))$
878	1	†{2134, 1324, 1243, 1234}	$1/(1-x)+x^2(1+x)C(x)/((1-x)(\sqrt{1-4x}-x^2))$
879	1	†{2134, 4123, 1243, 1234}	$C(x)+x^3C^3(x)/(1-2x)+x^4(1-x-x^2)C^3(x)/((1-x)^3(1-2x))$
880	1	{4312, 3412, 3142, 1432}	
	2	∗{3412, 3142, 4132, 1432}	$(1-6x+11x^2-6x^3+2x^4-x^5)/((1-3x+x^2)(1-4x+3x^2-x^3))$, [9]
881	1	∗{4312, 3412, 3142, 1324}	$(1-8x+25x^2-36x^3+22x^4-4x^5+2x^6-x^7)/((1-2x)^4(1-x))$
882	1	†{4312, 3412, 3142, 4123}	
	2	†{3412, 3142, 4132, 4123}	
	3	†{3142, 1432, 1342, 1243}	The generating function $f=F_T(x)$ satsifies $f=1-x+x^2f+x(x^2-2x+2)f^2-x^2(1-x)f^3$, [27]
883	1	†{4312, 3412, 3142, 1423}	$(1-3x+2x^2-x^4-x^3(1-x)^2C^2(x))/(1-4x+5x^2-3x^3-x^2(1-x)^2C^2(x))$
884	1	{4312, 3412, 3142, 1234}	$(1-6x+16x^2-22x^3+20x^4-8x^5)/(1-x)^7$
885	1	†{4312, 3412, 3124, 4132}	$(1+x^4C^5(x))C(x)/(1-x^3C^4(x))$
886	1	†{4312, 3412, 3124, 1423}	$C(x)+x^4C^3(x)/(1-x)^3+x^4C^2(x)/(1-x)^3+x^3C^3(x)/(1-x)$
887	1	{4312, 3412, 3124, 1243}	$(1-8x+27x^2-48x^3+49x^4-30x^5+9x^6+x^8)/((1-2x)^2(1-x)^5)$
888	1	{4312, 3412, 4132, 1342}	
	2	{4312, 3142, 4132, 1342}	$(1-5x+7x^2-2x^3+x^4)/((1-2x)(1-4x+3x^2-x^3))$
889	1	∗{4312, 3412, 4132, 1324}	$(1-7x+19x^2-23x^3+12x^4-2x^5-x^6+x^7-x^8)/((1-2x)^3(1-x)^2)$
890	1	†{4312, 3412, 4132, 4123}	
	2	†{3142, 1432, 1342, 1423}	
	3	†{3124, 1324, 1243, 1234}	The generating function $F_T(x)$ is given by $(1-v)(1-x^2/v^2)/x$, where v satisfies $v=1-x/v-x^2(1-v)/v^2$, [10]
891	1	†{2134, 2143, 2314, 3241}	$((1-x)(1-2x)+x^4C^2(x))C(x)/((1-2x)(1-x-x^3C^3(x)))$
892	1	{4312, 3412, 4132, 1243}	$(1-8x+26x^2-42x^3+35x^4-14x^5+3x^7)/((1-2x)^3(1-x)^3)$
893	1	{4312, 3412, 4132, 1234}	$(1-4x+7x^2-4x^3+5x^4+6x^5+5x^6+x^7)/(1-x)^5$
894	1	{4312, 3412, 1432, 1342}	$(1-4x+2x^2+4x^3+3x^4)/((1-2x-x^2)(1-3x))$
895	1	{4312, 3412, 1432, 1324}	$(1-8x+26x^2-42x^3+35x^4-17x^5+6x^6+2x^7-2x^8)/((1-2x)^3(1-x)^3)$
896	1	{4312, 3412, 1432, 4123}	$(1-x)(1-2x-x^2-x^3)/(1-4x+3x^2-x^3)$
897	1	{4312, 3412, 1432, 1243}	$(1-6x+14x^2-14x^3+7x^4-3x^5-2x^6+x^7)/((1-2x)^2(1-x)^3)$
898	1	{4312, 3412, 1432, 1234}	$(1-4x+7x^2-4x^3+5x^4+2x^5-9x^6+x^7+2x^8)/(1-x)^5$
899	1	{4312, 3412, 1342, 1324}	$(1-8x+26x^2-42x^3+35x^4-16x^5+5x^6)/((1-2x)^3(1-x)^3)$
900	1	{4312, 3412, 1342, 4123}	
	2	{3412, 4132, 1342, 4123}	$(1-6x+14x^2-17x^3+12x^4-4x^5+x^6)/((1-x)^2(1-5x+8x^2-7x^3+2x^4))$
901	1	{4312, 3412, 1342, 1243}	$(1-5x+9x^2-5x^3+2x^4)/((1-2x)^2(1-x)^2)$
902	1	∗{4312, 3412, 1324, 4123}	$(1-x+x^2)(1-7x+19x^2-22x^3+8x^4+x^5+x^6)/((1-2x)^2(1-x)^5)$
903	1	{4312, 3412, 1324, 1243}	$(1-8x+27x^2-48x^3+49x^4-32x^5+9x^6+5x^7+4x^8-2x^9)/((1-2x)^2(1-x)^5)$
904	1	{4312, 3412, 4123, 1243}	$(1-9x+34x^2-68x^3+77x^4-49x^5+14x^6+2x^8-x^9)/((1-2x)^3(1-x)^4)$
905	1	{4312, 3412, 4123, 1234}	$(1-6x+16x^2-22x^3+20x^4-5x^5+5x^6+3x^7)/(1-x)^7$
906	1	{4312, 3412, 1423, 1243}	$(1-7x+19x^2-23x^3+12x^4-2x^5-x^6)/((1-2x)^3(1-x)^2)$
907	1	{4312, 3412, 1423, 1234}	$(1-6x+16x^2-22x^3+20x^4-7x^5)/(1-x)^7$
908	1	{4312, 3412, 1243, 1234}	$(1-4x+7x^2-4x^3+5x^4+4x^5+x^6)/(1-x)^5$
909	1	†{4312, 3142, 3124, 1423}	$(1-2x)/(1-x)^2+x(1-3x+3x^2)C^2(x)/(1-x)^4$
910	1	{4312, 3142, 3124, 1234}	$(1-5x+11x^2-11x^3+9x^4+2x^5+2x^7-2x^8)/(1-x)^6$
911	1	∗{4312, 3142, 4132, 1324}	$(1-9x+34x^2-68x^3+77x^4-48x^5+14x^6)/((1-2x)^3(1-x)^4)$
912	1	{4312, 3142, 4132, 1243}	$(1-6x+13x^2-10x^3+2x^4+x^5)/((1-2x)^3(1-x))$
913	1	{4312, 3142, 4132, 1234}	$(1-4x+7x^2-4x^3+5x^4+5x^5-x^6-3x^7+x^8)/(1-x)^5$
914	1	{4312, 3142, 1432, 1342}	$(1-5x+6x^2+2x^3-x^4-x^5)/((1-2x-x^2)(1-x)(1-3x))$
915	1	{4312, 3142, 1432, 1324}	
	2	{4312, 3142, 1342, 1324}	$(1-8x+26x^2-42x^3+35x^4-15x^5+4x^6)/((1-2x)^3(1-x)^3)$
916	1	{4312, 3142, 1432, 4123}	$(1-4x+5x^2-3x^3+x^4-x^5)/(1-5x+8x^2-7x^3+2x^4)$
917	1	{4312, 3142, 1432, 1423}	
	2	{4312, 3142, 1342, 1423}	$(1-7x+18x^2-21x^3+13x^4-4x^5+x^6)/((1-x)(1-4x+4x^2-2x^3)(1-3x+x^2))$
918	1	{4312, 3142, 1432, 1234}	$(1-4x+7x^2-4x^3+5x^4+2x^5-4x^6-4x^7-2x^8+4x^9)/(1-x)^5$
919	1	{4312, 3142, 1342, 1243}	$(1-7x+19x^2-23x^3+12x^4-3x^5-x^6)/((1-2x)^3(1-x)^2)$
920	1	{4312, 3142, 1342, 1234}	$(1-6x+16x^2-22x^3+20x^4-9x^5+2x^7-2x^8+x^9)/(1-x)^7$
921	1	∗{4312, 3142, 1324, 4123}	$(1-9x+35x^2-75x^3+97x^4-79x^5+42x^6-14x^7)/((1-2x)^2(1-x)^6)$
922	1	∗{4312, 3142, 1324, 1423}	$(1-8x+26x^2-42x^3+35x^4-14x^5+x^6)/((1-2x)^3(1-x)^3)$
923	1	{4312, 3142, 1324, 1243}	$(1-9x+35x^2-75x^3+97x^4-80x^5+40x^6-6x^7-3x^8+x^9)/((1-2x)^2(1-x)^6)$
924	1	†{4312, 3142, 4123, 1423}	$(1-x)^3(1-x-xC(x))/((1-3x+x^2)(1-2x+2x^2))-x(x^4-5x^3+6x^2-4x+1)C(x))$
925	1	{4312, 3142, 4123, 1234}	$(1-6x+16x^2-22x^3+20x^4-8x^5-3x^6+6x^7-4x^8+x^9)/(1-x)^7$
926	1	{4312, 3142, 1423, 1243}	
	2	∗{4312, 4132, 1324, 4123}	$(1-9x+34x^2-68x^3+77x^4-49x^5+14x^6+2x^7-x^8)/((1-x)^4(1-2x)^3)$, [9]
927	1	{4312, 3142, 1423, 1234}	$(1-6x+16x^2-22x^3+20x^4-8x^5-2x^6+3x^7-3x^8+2x^9)/(1-x)^7$
928	1	{4312, 3124, 4132, 1342}	$(1-8x+26x^2-43x^3+39x^4-22x^5+7x^6+2x^7-x^8)/((1-x)^4(1-2x)(1-3x+x^2))$
929	1	†{4312, 3124, 4132, 1423}	$(1-3x+3x^2)C(x)/((1-2x)/(1-x))-x^2/(1-x)^3$
930	1	{4312, 3124, 4132, 1243}	$(1-7x+20x^2-28x^3+21x^4-7x^5-2x^6)/((1-x)^4(1-2x)^2)$
931	1	{4312, 3124, 4132, 1234}	$(1-4x+7x^2-4x^3+5x^4+7x^5+4x^6-x^7+x^8)/(1-x)^5$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
932	1	$\{4312, 3124, 1432, 1342\}$	$(1-5x+8x^2-2x^3-x^4-2x^5-5x^6-2x^7)/((1-2x-x^2)(1-x)^2(1-2x))$
933	1	$\{4312, 3124, 1432, 1324\}$	$(1-10x+43x^2-102x^3+145x^4-127x^5+66x^6-14x^7-3x^8)/((1-x)^5(1-2x)^3)$
934	1	$\{4312, 3124, 1432, 4123\}$	
	2	$\{3412, 3124, 4132, 1342\}$	$(1-8x+26x^2-43x^3+39x^4-22x^5+10x^6-2x^7)/((1-x)^4(1-2x)(1-3x+x^2))$
935	1	$\{4312, 3124, 1432, 1423\}$	$(1-6x+14x^2-15x^3+9x^4-3x^5-2x^6+x^7)/((1-x)^4(1-3x+x^2))$
936	1	$\{4312, 3124, 1432, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+3x^5-7x^6-4x^7+4x^8+2x^9-x^{10})/(1-x)^5$
937	1	$\{4312, 3124, 1342, 1324\}$	$(1-9x+35x^2-75x^3+97x^4-78x^5+34x^6-2x^7-2x^8)/((1-x)^6(1-2x)^2)$
938	1	$\{4312, 3124, 1342, 4123\}$	$(1-8x+27x^2-49x^3+53x^4-37x^5+14x^6-2x^7)/((1-x)^6(1-3x+x^2))$
939	1	$\{4312, 3124, 1342, 1423\}$	$(1-8x+27x^2-49x^3+53x^4-36x^5+12x^6-x^7)/((1-x)^6(1-3x+x^2))$
940	1	$*\{4312, 3124, 1324, 1423\}$	$(1-10x+42x^2-95x^3+125x^4-97x^5+40x^6-4x^7-x^8)/((1-x)^4(1-2x)^2(1-3x+x^2))$
941	1	$\{4312, 3124, 1324, 1243\}$	$(1-8x+27x^2-48x^3+49x^4-28x^5+5x^6)/((1-x)^5(1-2x)^2)$
942	1	$\dagger\{2134, 4213, 3214, 3241\}$	$C(x)+x^3C^2(x)/((1-x)(1-3x+x^2))$
943	1	$\{4312, 3124, 4123, 1243\}$	$(1-9x+35x^2-75x^3+97x^4-78x^5+34x^6-3x^7-x^8)/((1-x)^6(1-2x)^2)$
944	1	$\{4312, 3124, 1423, 1243\}$	$(1-8x+27x^2-48x^3+49x^4-28x^5+4x^6+2x^7)/((1-x)^5(1-2x)^2)$
945	1	$\{4312, 3124, 1423, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-7x^5-x^6-x^7+x^9)/(1-x)^7$
946	1	$\{4312, 3124, 1243, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-7x^5-2x^6+2x^7-3x^8+3x^9-x^{10})/(1-x)^7$
947	1	$\{4312, 4132, 1432, 1342\}$	$(1-x)(1-5x+6x^2+2x^3)/((1-2x)^2(1-3x))$
948	1	$\{4312, 4132, 1432, 1324\}$	$(1-8x+25x^2-36x^3+22x^4-x^5)/((1-x)(1-2x)^4)$
949	1	$\{4312, 4132, 1342, 4123\}$	$(1-5x+9x^2-8x^3+6x^4-2x^5)/((1-x)^2(1-4x+4x^2-3x^3+x^4))$
950	1	$\{4312, 4132, 1342, 1423\}$	$(1-5x+8x^2-4x^3+3x^4)/((1-x)(1-2x)(1-3x+x^2-x^3))$
951	1	$\{4312, 4132, 1342, 1243\}$	$(1-7x+19x^2-23x^3+12x^4-2x^5-4x^6+3x^7)/((1-x)^2(1-2x)^3)$
952	1	$\{4312, 4132, 1342, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5-x^6-2x^7+x^8)/(1-x)^5$
953	1	$*\{4312, 4132, 1324, 1423\}$	$(1-7x+18x^2-18x^3+4x^4+x^5)/(1-2x)^4$
954	1	$\{4312, 4132, 1324, 1243\}$	
	2	$\{4312, 1432, 1324, 1243\}$	$(1-10x+43x^2-102x^3+145x^4-126x^5+60x^6-x^7-14x^8+2x^9)/((1-x)^5(1-2x)^3)$
955	1	$\{4312, 4132, 1324, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+6x^5+x^6-10x^7+x^9)/(1-x)^5$
956	1	$\{4312, 4132, 4123, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+9x^5+7x^6+3x^7)/(1-x)^5$
957	1	$\{4312, 4132, 1423, 1243\}$	$(1-5x+9x^2-5x^3+2x^4+2x^5)/((1-x)^2(1-2x)^2)$
958	1	$\{4312, 4132, 1423, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+6x^5+x^6-3x^7+x^8)/(1-x)^5$
959	1	$\{4312, 4132, 1243, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+6x^5-4x^6-4x^7)/(1-x)^5$
960	1	$\{4312, 1432, 1342, 1324\}$	$(1-7x+19x^2-23x^3+12x^4-2x^5-2x^6+4x^7)/((1-x)^2(1-2x)^3)$
961	1	$\{4312, 1432, 1342, 4123\}$	$(1-4x+5x^2-2x^3+3x^4-x^6)/((1-x)^2(1-3x+x^2-x^3))$
962	1	$\{4312, 1432, 1342, 1423\}$	$(1-5x+7x^2-x^4+x^5)/((1-2x-x^2)(1-x)(1-3x+x^2))$
963	1	$\{4312, 1432, 1342, 1243\}$	$(1-5x+8x^2-x^3-3x^4+x^5)(1-2x+x^2-x^3)/((1-x)^2(1-2x)^3)$
964	1	$\{4312, 1432, 1342, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5-x^6-9x^7+2x^{10})/(1-x)^5$
965	1	$\{4312, 1432, 1324, 1423\}$	$(1-9x+34x^2-68x^3+77x^4-48x^5+10x^6+5x^7)/((1-x)^4(1-2x)^3)$
966	1	$\{4312, 1432, 1324, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5-2x^6-12x^7+3x^8+8x^9-4x^{10})/(1-x)^5$
967	1	$\{4312, 1432, 4123, 1243\}$	$(1-6x+14x^2-14x^3+7x^4-2x^5-4x^6)/((1-x)^3(1-2x)^2)$
968	1	$\{4312, 1432, 4123, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+4x^5-4x^6-10x^7+10x^8-3x^9)/(1-x)^5$
969	1	$\{4312, 1432, 1423, 1243\}$	$(1-7x+20x^2-28x^3+21x^4-6x^5-3x^6)/((1-x)^4(1-2x)^2)$
970	1	$\{4312, 1432, 1423, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+6x^5-2x^6-11x^7+4x^9)/(1-x)^5$
971	1	$\{4312, 1432, 1243, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+5x^5-5x^6-12x^7+8x^8+5x^9-3x^{10})/(1-x)^5$
972	1	$\{4312, 1342, 1324, 4123\}$	$(1-7x+21x^2-33x^3+31x^4-18x^5+4x^6)/((1-x)^6(1-2x))$
973	1	$\{4312, 1342, 1324, 1423\}$	$(1-8x+27x^2-48x^3+49x^4-28x^5+5x^6+x^7)/((1-x)^5(1-2x)^2)$
974	1	$\{4312, 1342, 1324, 1243\}$	$(1-8x+27x^2-48x^3+49x^4-30x^5+3x^6+16x^7-9x^8+x^9)/((1-x)^5(1-2x)^2)$
975	1	$\{4312, 1342, 1324, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+x^5-x^6-x^7)/(1-x)^6$
976	1	$\{4312, 1342, 4123, 1423\}$	
	2	$\{4132, 1342, 4123, 1243\}$	$(1-x+x^2)(1-5x+8x^2-3x^3)/((1-x)^3(1-4x+4x^2-2x^3))$
977	1	$\{4312, 1342, 4123, 1243\}$	$(1-5x+10x^2-8x^3+5x^4+x^5-x^6)/((1-x)^4(1-2x))$
978	1	$\{4312, 1342, 4123, 1234\}$	$(1-7x+22x^2-38x^3+42x^4-28x^5+8x^6+3x^7-2x^8)/(1-x)^8$
979	1	$\{4312, 1342, 1423, 1243\}$	$(1-7x+20x^2-28x^3+21x^4-7x^5-5x^6+3x^7)/((1-x)^4(1-2x)^2)$
980	1	$\{4312, 1342, 1423, 1234\}$	$(1-7x+22x^2-38x^3+42x^4-26x^5+6x^6+3x^7-2x^8)/(1-x)^8$
981	1	$\{4312, 1342, 1243, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+x^5-6x^6+2x^7)/(1-x)^6$
982	1	$*\{4312, 1324, 4123, 1423\}$	$(1-8x+26x^2-43x^3+39x^4-19x^5+3x^6)/((1-x)^4(1-2x)(1-3x+x^2))$
983	1	$\{4312, 1324, 4123, 1243\}$	$(1-6x+15x^2-18x^3+13x^4-4x^5-4x^6-x^7+2x^8)/((1-x)^5(1-2x))$
984	1	$\{4312, 1324, 4123, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-7x^5-3x^6-x^7+2x^8+3x^9-2x^{10})/(1-x)^7$
985	1	$\{4312, 1324, 1423, 1243\}$	$(1-9x+35x^2-75x^3+97x^4-77x^5+29x^6+4x^7-2x^8-2x^9)/((1-x)^6(1-2x)^2)$
986	1	$\{4312, 1324, 1423, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-6x^5-x^7-2x^8+3x^9-x^{10})/(1-x)^7$
987	1	$\{4312, 1324, 1243, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+2x^5-4x^6-3x^7+4x^9-2x^{10})/(1-x)^6$
988	1	$\{4312, 4123, 1423, 1234\}$	$(1-7x+22x^2-38x^3+42x^4-25x^5+7x^6-x^7)/(1-x)^8$
989	1	$\{4312, 4123, 1243, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+3x^5-2x^6-x^7-x^8)/(1-x)^6$
990	1	$\{4312, 1423, 1243, 1234\}$	$(1-5x+11x^2-11x^3+9x^4+3x^5-3x^6-3x^7+2x^9)/(1-x)^6$
991	1	$\dagger\{3412, 3142, 3124, 1423\}$	$(1-2x)/(1-x)^2+x(1-4x+5x^2-x^3)C^2(x)/((1-x)^3(1-2x))$
992	1	$\dagger\{3412, 3142, 4132, 1423\}$	$(1-4x+5x^2-x^3)(1-4x+4x^2-2x^3)/((1-5x+10x^2-9x^3+4x^4)(1-3x+x^2))+x(1-x)^5(1-2x)C^2(x)/((1-5x+10x^2-9x^3+4x^4)(1-3x+x^2))$
993	1	$*\{3412, 3142, 4132, 1243\}$	$(1-8x+24x^2-32x^3+18x^4-5x^5)/((1-x)(1-2x)(1-3x+x^2)^2)$
994	1	$\{3412, 3142, 1432, 4123\}$	$(1-4x+5x^2-3x^3+3x^4-x^5)/((1-x)(1-4x+4x^2-3x^3+x^4))$
995	1	$\{3412, 3142, 1432, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-12x^5+5x^6-x^7)/(1-x)^7$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
996	1	$\{3412, 3142, 1342, 4123\}$	$(1-5x+8x^2-5x^3)/(1-6x+12x^2-11x^3+3x^4)$
997	1	$*\{3412, 3142, 1324, 4123\}$	$(1-8x+27x^2-48x^3+49x^4-29x^5+11x^6-2x^7)/((1-x)^5(1-2x)^2)$
998	1	$*\{3412, 3142, 1324, 1243\}$	
	2	$*\{3412, 4132, 1423, 1243\}$	$(1-10x+42x^2-95x^3+125x^4-99x^5+46x^6-9x^7)/((1-x)^4(1-2x)^2(1-3x+x^2))$, [9]
999	1	$\{3412, 3142, 1423, 1234\}$	$(1-9x+35x^2-75x^3+97x^4-78x^5+36x^6-6x^7)/((1-x)^6(1-2x)^2)$
1000	1	$\{3412, 3124, 4132, 1432\}$	$(1-2x+x^2-x^3)(1-6x+13x^2-10x^3+x^5)/((1-x)^4(1-2x)(1-3x+x^2))$
1001	1	$*\{3412, 3124, 4132, 1324\}$	$(1-8x+27x^2-48x^3+49x^4-29x^5+9x^6-2x^8)/((1-x)^5(1-2x)^2)$
1002	1	$\{3412, 3124, 1432, 1342\}$	$(1-7x+19x^2-23x^3+11x^4-2x^5+x^6+2x^7)/((1-2x-x^2)(1-x)^4(1-2x))$
1003	1	$\{3412, 3124, 1432, 1243\}$	$(1-6x+15x^2-18x^3+13x^4-7x^5)/((1-x)^5(1-2x))$
1004	1	$\{3412, 3124, 1432, 1234\}$	$(1-4x+7x^2-4x^3+5x^4+x^5-3x^6)/(1-x)^5$
1005	1	$*\{3412, 3124, 1342, 1324\}$	$(1-8x+25x^2-38x^3+29x^4-11x^5)/((1-x)^4(1-2x)(1-3x))$
1006	1	$*\{3412, 3124, 1324, 1243\}$	
	2	$*\{3412, 1324, 1423, 1234\}$	$(1-9x+35x^2-75x^3+97x^4-77x^5+34x^6-7x^7)/((1-x)^6(1-2x)^2)$, [9]
1007	1	$\dagger\{3412, 3124, 4123, 1423\}$	$(1-3x+3x^2)^2C(x)/((1-2x)(1-x)^4)-x^2/(1-x)^4$
1008	1	$*\{3412, 3124, 4123, 1243\}$	$(1-9x+35x^2-75x^3+97x^4-78x^5+35x^6-6x^7+2x^8)/((1-x)^6(1-2x)^2)$
1009	1	$*\{3412, 3124, 1423, 1243\}$	$(1-10x+44x^2-110x^3+172x^4-174x^5+111x^6-41x^7+8x^8)/((1-x)^7(1-2x)^2)$
1010	1	$*\{3412, 3124, 1423, 1234\}$	$(1-8x+28x^2-54x^3+64x^4-47x^5+19x^6-4x^7)/((1-x)^7(1-2x))$
1011	1	$*\{3412, 3124, 1243, 1234\}$	$(1-7x+21x^2-33x^3+31x^4-16x^5+4x^6)/((1-x)^6(1-2x))$
1012	1	$*\{3412, 4132, 1432, 1342\}$	$(1-5x+6x^2+x^3+x^4)/((1-3x)(1-3x+x^2))$
1013	1	$*\{3412, 4132, 1432, 1324\}$	$(1-6x+13x^2-11x^3+4x^4-2x^5-x^6)/((1-x)^2(1-2x)(1-3x+x^2))$
1014	1	$*\{3412, 4132, 1324, 4123\}$	$(1-7x+20x^2-28x^3+21x^4-8x^5+2x^7-2x^8)/((1-x)^4(1-2x)^2)$
1015	1	$*\{3412, 4132, 1324, 1423\}$	$(1-6x+13x^2-11x^3+4x^4-x^5-x^6)/((1-x)^2(1-2x)(1-3x+x^2))$
1016	1	$*\{3412, 4132, 1324, 1243\}$	$(1-10x+43x^2-103x^3+151x^4-143x^5+85x^6-19x^7-12x^8+10x^9-2x^{10})/((1-2x)(1-x)^6(1-3x+x^2))$
1017	1	$\{3412, 4132, 1324, 1234\}$	$(1-5x+11x^2-11x^3+9x^4-x^5-3x^6+x^7)/(1-x)^6$
1018	1	$\{3412, 4132, 4123, 1243\}$	$(1-8x+27x^2-48x^3+49x^4-28x^5+6x^6)/((1-2x)^2(1-x)^5)$
1019	1	$\{3412, 4132, 4123, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-6x^5+3x^6)/(1-x)^7$
1020	1	$\{3412, 4132, 1423, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-9x^5+x^6+x^7)/(1-x)^7$
1021	1	$\{3412, 1432, 1342, 4123\}$	$(1-4x+5x^2-2x^3+3x^4)/((1-x)^2(1-3x+x^2-x^3))$
1022	1	$*\{3412, 1432, 1324, 1243\}$	$(1-8x+26x^2-43x^3+39x^4-22x^5+5x^6)/((1-2x)(1-x)^4(1-3x+x^2))$
1023	1	$\{3412, 1432, 4123, 1234\}$	$(1-5x+11x^2-11x^3+9x^4-3x^5-x^6+x^7)/(1-x)^6$
1024	1	$\{3412, 1432, 1423, 1234\}$	$(1-6x+16x^2-22x^3+20x^4-9x^5+3x^6+x^7)/(1-x)^7$
1025	1	$*\{3412, 1342, 4123, 1423\}$	$(1-6x+13x^2-12x^3+5x^4)/((1-3x)(1-x)^4)$
1026	1	$*\{3412, 1342, 1423, 1234\}$	$(1-10x+44x^2-110x^3+172x^4-173x^5+111x^6-42x^7+8x^8)/((1-2x)^2(1-x)^7)$
1027	1	$*\{3412, 1324, 4123, 1243\}$	$(1-7x+21x^2-33x^3+31x^4-17x^5+3x^6-2x^7+2x^8)/((1-2x)(1-x)^6)$
1028	1	$*\{3412, 1324, 1423, 1243\}$	$(1-11x+52x^2-137x^3+220x^4-223x^5+140x^6-48x^7+7x^8)/((1-2x)^2(1-x)^5(1-3x+x^2))$
1029	1	$*\{3412, 4123, 1423, 1243\}$	$(1-10x+41x^2-87x^3+100x^4-59x^5+13x^6)/((1-2x)^3(1-x)^2(1-3x+x^2))$
1030	1	$*\{3412, 4123, 1423, 1234\}$	$(1-9x+35x^2-75x^3+97x^4-76x^5+33x^6-7x^7)/((1-2x)^2(1-x)^6)$
1031	1	$*\{3412, 4123, 1243, 1234\}$	$(1-9x+35x^2-75x^3+97x^4-77x^5+34x^6-9x^7+4x^8)/((1-2x)^2(1-x)^6)$
1032	1	$*\{3412, 1423, 1243, 1234\}$	$(1-9x+35x^2-75x^3+97x^4-77x^5+35x^6-9x^7)/((1-2x)^2(1-x)^6)$
1033	1	$\{3142, 3124, 4132, 1234\}$	$(1-6x+14x^2-15x^3+10x^4-3x^5)/((1-2x)(1-x)^2(1-3x+2x^2-x^3))$
1034	1	$\{3142, 3124, 1432, 1342\}$	
	2	$\{3142, 1324, 1243, 1234\}$	
	3	$\{3124, 1432, 1342, 1423\}$	$(1-2x)(1-2x-x^2)/((1-4x+2x^2+2x^3)(1-x))$
1035	1	$\{3142, 3124, 1432, 1234\}$	$(1-x)^3/((1-2x-2x^2-x^3)(1-2x+3x^2-x^3))$
1036	1	$\{3142, 3124, 4123, 1243\}$	$(1-7x+18x^2-19x^3+7x^4-x^5-x^6)/((1-2x)^2(1-x)(1-3x+x^2))$
1037	1	$\{3142, 4132, 1432, 1234\}$	$(1-5x+8x^2-3x^3+x^4-3x^5-3x^6)/((1-2x)(1-x)(1-3x+x^2))$
1038	1	$*\{3142, 4132, 1324, 4123\}$	$(1-6x+11x^2-3x^3-4x^4-x^5)/((1-2x)(1-2x-x^2)(1-3x+x^2))$
1039	1	$\{3142, 4132, 1324, 1234\}$	$(1-7x+18x^2-18x^3+2x^4+6x^5-4x^6+x^7)/((1-x-x^2)(1-2x)(1-x)^2(1-3x+x^2))$
1040	1	$\{3142, 4132, 4123, 1234\}$	$(1-6x+14x^2-14x^3+7x^4+x^5)/((1-2x)^2(1-x)^3)$
1041	1	$\{3142, 1432, 1324, 1234\}$	$(1-2x)^2(1-x)/((1-3x)(1-3x+3x^2-x^3-x^4))$
1042	1	$\{3142, 1432, 4123, 1243\}$	$(1-4x+5x^2-2x^3+2x^4)/((1-x)(1-4x+4x^2-2x^3))$
1043	1	$\{3142, 1432, 4123, 1234\}$	$(1-5x+9x^2-7x^3+6x^4-5x^5-2x^6+2x^7-2x^8)/(1-3x+2x^2-x^3)^2$
1044	1	$\{3142, 1432, 1423, 1234\}$	$(1-3x+2x^2-x^3)^2/((1-x+x^2)(1-6x+11x^2-7x^3+2x^4+x^5-x^6))$
1045	1	$*\{3142, 1324, 4123, 1423\}$	
	2	$\{3124, 1432, 4123, 1423\}$	$(1-7x+17x^2-15x^3+3x^4-x^5)/((1-2x)(1-3x+x^2)^2)$, [9]
1046	1	$\{3142, 1324, 4123, 1243\}$	$(1-8x+25x^2-38x^3+30x^4-15x^5+5x^6-x^7)/((1-x)^3(1-3x+x^2)^2)$
1047	1	$\{3142, 4123, 1423, 1243\}$	$(1-5x+7x^2-x^3)/((1-3x)(1-2x)(1-x))$
1048	1	$\{3124, 4132, 1432, 1243\}$	$(1-8x+25x^2-37x^3+26x^4-9x^5+4x^6)/((1-2x)^2(1-x)^2(1-3x+x^2))$
1049	1	$\{3124, 4132, 1432, 1234\}$	$(1-5x+10x^2-9x^3+7x^4-2x^5-2x^6+4x^7-x^8)/((1-x)^3(1-3x+2x^2-x^3))$
1050	1	$\{3124, 4132, 1342, 1234\}$	$(1-7x+21x^2-34x^3+35x^4-24x^5+11x^6-2x^7)/((1-x)^5(1-3x+2x^2-x^3))$
1051	1	$*\{3124, 4132, 1324, 4123\}$	$(1-7x+17x^2-13x^3-4x^4+5x^5+2x^6)/((1-2x)^3(1-2x-x^2))$
1052	1	$\{3124, 4132, 1324, 1243\}$	$(1-9x+33x^2-62x^3+63x^4-32x^5+4x^6+x^7)/((1-2x)^2(1-x)^3(1-3x+x^2))$
1053	1	$\{3124, 4132, 1324, 1234\}$	$(1-7x+20x^2-28x^3+20x^4-2x^5-8x^6+4x^7-2x^8)/((1-x-x^2)(1-x)^4(1-3x+2x^2-x^3))$
1054	1	$\dagger\dagger\{3124, 4132, 4123, 1423\}$	
	2	$\dagger\dagger\{3124, 4123, 1423, 1243\}$	
	3	$\dagger\dagger\{1324, 4123, 1423, 1234\}$	$C(x)+x^3C^5(x)+x^4C^5(x)/(1-2x)$, [10]
1055	1	$\{3124, 4132, 4123, 1243\}$	$(1-9x+33x^2-61x^3+58x^4-24x^5+x^7)/((1-2x)^4(1-x)^2)$
1056	1	$\{3124, 4132, 4123, 1234\}$	$(1-8x+27x^2-48x^3+49x^4-25x^5+3x^6-x^7)/((1-2x)^2(1-x)^5)$
1057	1	$\{3124, 4132, 1423, 1234\}$	$(1-6x+15x^2-19x^3+16x^4-7x^5+4x^6-x^7)/((1-x)^4(1-3x+2x^2-x^3))$

Continuation of Table 1

i	j	$T_{i,j}$	$F_{T_{i,j}}(x)$
1058	1	$\{3124, 4132, 1243, 1234\}$	$(1-8x+27x^2-49x^3+54x^4-37x^5+15x^6-6x^7+x^8)/((1-2x)(1-x)^4(1-3x+2x^2-x^3))$
1059	1	$\{3124, 1432, 1342, 4123\}$	$(1-4x+3x^2+3x^3+2x^4-x^5)/((1-2x-x^2)(1-3x+x^2))$
1060	1	$\{3124, 1432, 1324, 1234\}$	$(1-x)^3(1-3x+2x^2-2x^3)/(1-7x+19x^2-29x^3+28x^4-17x^5+6x^6)$
1061	1	$\{3124, 1432, 4123, 1243\}$	$(1-8x+25x^2-37x^3+26x^4-11x^5+9x^6-4x^7)/((1-2x)^2(1-x)^2(1-3x+x^2))$
1062	1	$\{3124, 1432, 4123, 1234\}$	$(1-4x+5x^2-x^3+2x^4-4x^6+2x^7)/((1-x)^2(1-3x+x^2))$
1063	1	$\{3124, 1432, 1423, 1243\}$	$(1-2x)^3(1-x)^2/(1-9x+32x^2-58x^3+56x^4-26x^5+3x^6)$
1064	1	$\{3124, 1432, 1423, 1234\}$	$(1-2x)(1-x)^2/(1-5x+8x^2-6x^3+x^5)$
1065	1	$\{3124, 1432, 1243, 1234\}$	$(1-x)^2(1-3x+2x^2-2x^3)/(1-6x+13x^2-16x^3+12x^4-4x^5-x^6+2x^7)$
1066	1	†$\{3124, 1342, 1324, 1234\}$	$(1-x+x(3x-2)C(x))/((1-x)^2(1-2xC(x)))$
1067	1	†$\{3124, 1342, 4123, 1243\}$	$C(x)+x^3(1-x-x^2)C^2(x)/((1-2x)(1-x)^3)$
1068	1	†$\{3124, 1342, 1243, 1234\}$	$(1-4x+4x^2-2x^3+(1-2x+2x^2)\sqrt{1-4x})/(1-5x+6x^2-4x^3+(1-x)(1-2x+2x^2)\sqrt{1-4x})$
1069	1	†$\{3124, 1324, 4123, 1243\}$	$((1-4x+6x^2-3x^3-2x^4+x^5)C(x)/(1-x)-1+3x-2x^2-2x^3)/(x(1-x-x^2))$
1070	1	$\{4132, 1432, 1342, 1234\}$	$(1-9x+33x^2-62x^3+63x^4-34x^5+9x^6+2x^7-4x^8)/((1-2x)^2(1-3x+x^2)(1-x)^3)$
1071	1	$\{4132, 1432, 1324, 1234\}$	$(1-10x+42x^2-95x^3+125x^4-97x^5+45x^6-19x^7+13x^8-4x^9)/((1-2x)^2(1-3x+x^2)(1-x)^4)$
1072	1	$\{4132, 1432, 4123, 1234\}$	$(1-6x+14x^2-14x^3+7x^4-x^5-4x^6+2x^7)/((1-2x)^2(1-x)^3)$
1073	1	$\{4132, 1432, 1423, 1234\}$	$(1-8x+25x^2-37x^3+26x^4-9x^5+3x^6)/((1-2x)^2(1-3x+x^2)(1-x)^2)$
1074	1	$\{4132, 1432, 1243, 1234\}$	$(1-8x+26x^2-43x^3+39x^4-20x^5+7x^6-3x^7)/((1-2x)(1-3x+x^2)(1-x)^4)$
1075	1	†$\{4132, 1342, 1324, 1243\}$	$C(x)+x^3C^5(x)+x^4C^4(x)/(1-x)^2$
1076	1	$\{4132, 1342, 4123, 1234\}$	$(1-8x+27x^2-48x^3+49x^4-28x^5+8x^6+x^7)/((1-2x)^2(1-x)^5)$
1077	1	†$\{4132, 1342, 1423, 1243\}$	$(C(x)+x^4C^2(x)/(1-x)^3+x^5C^4(x)/(1-x)^3)/(1-x^3C^2(x)/(1-x)-x^4C^4(x)/(1-x))$
1078	1	$\{4132, 1342, 1423, 1234\}$	$(1-9x+33x^2-62x^3+63x^4-33x^5+7x^6+x^7)/((1-2x)^2(1-3x+x^2)(1-x)^3)$
1079	1	$\{4132, 1342, 1243, 1234\}$	$(1-9x+34x^2-69x^3+82x^4-57x^5+19x^6+x^7-2x^8+x^9)/((1-2x)(1-3x+x^2)(1-x)^5)$
1080	1	$*\{4132, 1324, 4123, 1423\}$	$(1-8x+24x^2-31x^3+14x^4+x^5)/((1-3x+x^2)(1-2x)^3)$
1081	1	$\{4132, 1324, 4123, 1243\}$	$(1-8x+25x^2-36x^3+20x^4+5x^5-14x^6+3x^7+x^8)/((1-2x)(1-3x+x^2)(1-x)^3(1-x-x^2))$
1082	1	$\{4132, 1324, 4123, 1234\}$	$(1-8x+26x^2-41x^3+29x^4+x^5-18x^6+8x^7+3x^8)/((1-2x)^2(1-x)^4(1-x-x^2))$
1083	1	†$\{4132, 1324, 1423, 1243\}$	$1+x(1-5x+9x^2-5x^3-3x^4+3x^5-x^6)C^2(x)/((1-2x)(1-x)^4)-x^2/(1-2x)$
1084	1	$\{4132, 1324, 1423, 1234\}$	$(1-9x+33x^2-62x^3+63x^4-33x^5+5x^6+3x^7)/((1-2x)^2(1-3x+x^2)(1-x)^3)$
1085	1	$\{4132, 1324, 1243, 1234\}$	$(1-9x+33x^2-61x^3+56x^4-13x^5-22x^6+18x^7-4x^8+3x^{10})/((1-2x)(1-3x+x^2)(1-x)^4(1-x-x^2))$
1086	1	$\{4132, 4123, 1423, 1243\}$	$(1-7x+18x^2-20x^3+9x^4)/((1-2x)(1-x)^3(1-3x))$
1087	1	$\{4132, 4123, 1423, 1234\}$	$(1-8x+27x^2-48x^3+49x^4-26x^5+3x^6+2x^7-x^8)/((1-2x)^2(1-x)^5)$
1088	1	$\{4132, 4123, 1243, 1234\}$	$(1-6x+14x^2-14x^3+7x^4+2x^5-2x^6)/((1-2x)^2(1-x)^3)$
1089	1	$\{4132, 1423, 1243, 1234\}$	$(1-7x+19x^2-24x^3+15x^4-4x^5-3x^6+x^7)/((1-2x)(1-3x+x^2)(1-x)^3)$
1090	1	$\{1432, 1342, 1324, 4123\}$	$(1-5x+7x^2-x^3+x^4-x^5)/(1-3x+x^2)^2$
1091	1	$\{1432, 1342, 4123, 1234\}$	$(1-5x+7x^2-x^3+x^4-2x^5)/(1-3x+x^2)^2$
1092	1	$\{1432, 1342, 1423, 1234\}$	$(1-6x+10x^2-3x^3-x^4)/((1-x)(1-6x+9x^2-x^3))$
1093	1	$\{1432, 1324, 4123, 1243\}$	$(1-9x+32x^2-56x^3+50x^4-23x^5+7x^6-x^7)/((1-2x)(1-3x+x^2)^2(1-x)^2)$
1094	1	$\{1432, 1324, 4123, 1234\}$	$(1-4x+4x^2+x^3+2x^4+x^5)/((1-2x)(1-3x+x^2))$
1095	1	$\{1432, 1324, 1243, 1234\}$	$(1-6x+13x^2-15x^3+7x^4+x^5)/(1-7x+18x^2-25x^3+18x^4-4x^5)$
1096	1	$\{1432, 4123, 1243, 1234\}$	$(1-6x+12x^2-8x^3+2x^4-2x^5-2x^6+x^7)/((1-3x+x^2)^2(1-x))$
1097	1	†$\{1342, 1324, 4123, 1243\}$	$C(x)+x^3(1-2x)C^2(x)/((1-3x+x^2)(1-x)^3)$
1098	1	†$\{1342, 4123, 1243, 1234\}$	$C(x)+x^4C^2(x)/((1-x)^2(1-2x))+x^3C^5(x)$
1099	1	†$\{1324, 2341, 1342, 1243\}$	$(1-x)C^2(x)-x^2/(1-3x+x^2)$
1100	1	†$\{1324, 4123, 1243, 1234\}$	$C(x)+x^3(1-2x+x^2-x^3-x^4)C^4(x)/((1-x)(1-2x)(1-x-x^2))$

End of Table 1

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