

Table 24.2

Multinomials and Partitions

n	m	π	M_1	M_2	M_3	n	m	π	M_1	M_2	M_3
10	1	10	1	362880	1	10		$2^3, 4$	18900	18900	3150
	2	1, 9	10	403200	10			$2^2, 3^2$	25200	25200	6300
		2, 8	45	226800	45		5	$1^4, 6$	5040	25200	210
		3, 7	120	172800	120			$1^3, 2, 5$	15120	60480	2520
		4, 6	210	151200	210			$1^3, 3, 4$	25200	50400	4200
		5^2	252	72576	126			$1^2, 2^2, 4$	*37800	*56700	9450
	3	$1^2, 8$	90	226800	45			$1^2, 2, 3^2$	50400	50400	12600
		1, 2, 7	360	259200	360			$1, 2^3, 3$	75600	25200	12600
		1, 3, 6	840	201600	840			2^5	113400	945	945
		1, 4, 5	1260	181440	1260		6	$1^5, 5$	30240	6048	252
		$2^2, 6$	1260	75600	630			$1^4, 2, 4$	75600	18900	3150
		2, 3, 5	2520	*120960	2520			$1^4, 3^2$	100800	8400	2100
		$2, 4^2$	3150	56700	1575			$1^3, 2^2, 3$	151200	25200	12600
		$3^2, 4$	4200	50400	2100			$1^2, 2^4$	226800	4725	4725
	4	$1^3, 7$	720	86400	120		7	$1^6, 4$	151200	1260	210
		$1^2, 2, 6$	2520	151200	1260			$1^5, 2, 3$	302400	5040	2520
		$1^2, 3, 5$	5040	120960	2520			$1^4, 2^3$	453600	3150	3150
		$1^2, 4^2$	6300	56700	1575		8	$1^7, 3$	604800	240	120
		$1, 2^2, 5$	7560	90720	3780			$1^6, 2^2$	907200	630	630
		1, 2, 3, 4	12600	151200	12600		9	$1^8, 2$	1814400	45	45
		$1, 3^3$	16800	22400	2800		10	1^{10}	3628800	1	1

*See page II.