

Partitions

n	p(n)	Est p(n)	Error	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
0	1			1																								
1	1	1	0%	1																								
2	2	2	0%	1	1																							
3	3	4	33%	1	1	1																						
4	5	6	20%	1	2	1	1																					
5	7	8	14%	1	2	2	1	1																				
6	11	12	9%	1	3	3	2	1	1																			
7	15	18	20%	1	3	4	3	2	1	1																		
8	22	25	14%	1	4	5	5	3	2	1	1																	
9	30	35	17%	1	4	7	6	5	3	2	1	1																
10	42	48	14%	1	5	8	9	7	5	3	2	1	1															
11	56	64	14%	1	5	10	11	10	7	5	3	2	1	1														
12	77	86	12%	1	6	12	15	13	11	7	5	3	2	1	1													
13	101	115	14%	1	6	14	18	18	14	11	7	5	3	2	1	1												
14	135	151	12%	1	7	16	23	23	20	15	11	7	5	3	2	1	1											
15	176	198	13%	1	7	19	27	30	26	21	15	11	7	5	3	2	1	1										
16	231	257	11%	1	8	21	34	37	35	28	22	15	11	7	5	3	2	1	1									
17	297	332	12%	1	8	24	39	47	44	38	29	22	15	11	7	5	3	2	1	1								
18	385	427	11%	1	9	27	47	57	58	49	40	30	22	15	11	7	5	3	2	1	1							
19	490	545	11%	1	9	30	54	70	71	65	52	41	30	22	15	11	7	5	3	2	1	1						
20	627	692	10%	1	10	33	64	84	90	82	70	54	42	30	22	15	11	7	5	3	2	1	1					
21	792	875	10%	1	10	37	72	101	110	105	89	73	55	42	30	22	15	11	7	5	3	2	1	1				
22	1004	1101	10%	1	11	40	84	119	136	131	116	94	75	56	42	30	22	17	11	7	5	3	2	1	1			
23	1257	1381	10%	1	11	44	94	141	163	164	146	123	97	76	56	42	30	22	17	11	7	5	3	2	1	1		
24	1581	1724	9%	1	12	48	108	164	199	201	186	157	128	99	77	56	42	30	26	17	11	7	5	3	2	1	1	
25	1981	2145	8%	1	12	52	120	192	235	248	230	201	164	131	100	77	56	42	36	37	17	11	7	5	3	2	1	1

The pattern of the number of partitions is clear if you structure by the number of elements in each partition
 And if you bother to write them out you can see exactly why this occurs.
 Most intriguingly, the p(n) sequence is repeated with greater accuracy in each element column
 Est p(n) is Hardy and Ramamujan's asymptotic formula
 Given a couple of lifetimes I think I might have just deduced it myself

Examples	Total
1 : 1	: 1
2 : 2 11	: 2
3 : 3 21 111	: 3
4 : 4 31 22 211 1111	: 5
5 : 5 41 32 311 221 2111 11111	: 7