

A319094

Triangle of Coefficients in Expansion of $(1 + x + 2x^2 + x^3 + x^4 + x^5 + x^6)^n$

Center-justified Triangle

Row	Sum																																																											
n	S_n																																																											
0	1																																																											
1	8															1	1	2	1	1	1	1																																						
2	64																						1	2	5	6	8	8	9	8	7	4	3	2	1																									
3	512															1	3	9	16	27	36	47	54	60	58	54	45	37	27	18	10	6	3	1																										
4	4096											1	4	14	32	65	108	166	228	296	352	396	412	409	380	336	276	215	156	108	68	39	20	10	4	1																								
5	32768															1	5	20	55	130	256	455	725	1075	1475	1907	2310	2655	2885	2990	2941	2760	2460	2095	1695	1306	950	655	425	260	146	75	35	15	5	1														
6	262144	1	6	27	86	231	522	1052	1902	3171	4896	7098	9678	12509	15342	17952	20048	21438	21942	21546	20286	18342	15902	13227	10536	8041	5862	4077	2692	1686	996	552	282	132	56	21	6	1																						

REFERENCE:

Shara Lalo and Zagros Lalo, Polynomial Expansion Theorems and Number Triangles, Zana Publishing, 2018, ISBN: 978-1-9995914-0-3