

Practice Problems

					1					
				1	1					
			1	2	1					
		1	3	3	1					
		1	4	6	4	1				
	1	5	10	10	5	1				
	1	6	15	20	15	6	1			
	1	7	21	35	35	21	7	1		
1	1	8	28	46	70	46	28	8	1	
1	9	36	74	116	116	74	36	9	1	1

a) $(x + 1)^6$ b) $(x + 1)^7$ c) $(x + 1)^8$

a) $x^6 + 6x^5 + 15x^4 + 20x^3 + 15x^2 + 6x + 1$

b) $x^7 + 7x^6 + 21x^5 + 35x^4 + 35x^3 + 21x^2 + 7x + 1$

c) $x^9 + 9x^8 + 36x^7 + 74x^6 + 116x^5 + 116x^4 + 74x^3 + 36x^2 + 9x + 1$

Pascal's triangle, combinatorix, or distribution could have been used.