

Year 4 Math Assignment 6: Binomial Theorem

Time: 30 mins

Q1 Draw the Pascal's triangle for the first 6 rows and use it to write down the expansions of

(a) $(x + y)^3$

(b) $(a - 2b)^4$

(c) $(4 - 3x)^5$

Q2 Find the coefficient of x^2 in the following expansions.

(a) $(2 - x)^5$

(b) $(3 + 2x)^4$

(c) $(2 - 2x)^3$

Q3 The coefficient of x^2 in the expansion of $(x + 2y)^3$ is 24. Find the value of y .

Q4 Expand completely

(a) $(3x - 2y)^4$

(b) $(2 + x)(1 - x)^4$

Q5 Given that x is small such that terms of x^3 and higher can be ignored, expand $(2x + 3)(7 - 2x)^5$.