

3 Exam Questions

Yr 1 – The Binomial Expansion

(1) The constant in the binomial expansion of $\left(2x + \frac{p}{x^2}\right)^9$ is 34560. Find the value of p .

(2) (a) Find the first 4 terms in the binomial expansion of $(1 + 2x)^7$ in ascending powers of x .

(b) By using a suitable value of x , find a cubic approximation of the value of 0.96^7 .

(c) Find the percentage error of the approximation found in part (a) to 3 significant figures.

(3) The constant and the term in x have the same value in the binomial expansion of $(p + x)^4$ where p is a non-zero constant. Find the term in x^3 in the expansion.

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