

**Advanced Higher Maths
SQA 2016 Exemplar
Question 1**



Use the binomial theorem to expand and simplify

$$\left(\frac{x^2}{3} - \frac{2}{x}\right)^5$$

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Answer:

$$\frac{x^{10}}{243} - \frac{10x^7}{81} + \frac{40x^4}{27} - \frac{80x}{9} + \frac{80}{3x^2} - \frac{32}{x^5}$$