

# Binomial Theorem

## Question Paper 4

<b>Level</b>	A Level
<b>Subject</b>	Maths
<b>Exam Board</b>	OCR
<b>Module</b>	Core 2
<b>Topic</b>	Algebra
<b>Sub Topic</b>	Binomial Theorem
<b>Booklet</b>	Question Paper - 4

**Time Allowed:** 16 minutes

**Score:** /13

**Percentage:** /100

**Grade Boundaries:**

A*	A	B	C	D	E	U
>85%	77.5%	70%	62.5%	57.5%	45%	<45%

**1** Simplify  $(3 + 2x)^3 - (3 - 2x)^3$ . [5]

**2** (i) Find the binomial expansion of  $\left(x^2 + \frac{1}{x}\right)^3$ , simplifying the terms. [4]

(ii) Hence find  $\int \left(x^2 + \frac{1}{x}\right)^3 dx$ . [4]