

# Binomial Negative & Fractional

## Difficulty: Easy

### Question Paper 2

Level	A Level
Subject	Maths Pure 3
Exam Board	CIE
Topic	Algebra
Sub-Topic	Binomial negative & fractional
Difficulty	Easy
Booklet	Question Paper 2

**Time allowed:** 34 minutes

**Score:** /24

**Percentage:** /100

#### Grade Boundaries:

A*	A	B	C	D	E
>90%	81%	70%	58%	46%	34%

## Question 1

Expand  $(2 + 3x)^{-2}$  in ascending powers of  $x$ , up to and including the term in  $x^2$ , simplifying the coefficients. [4]

## Question 2

Expand  $\sqrt[3]{1 - 6x}$  in ascending powers of  $x$  up to and including the term in  $x^3$ , simplifying the coefficients. [4]

### Question 3

Expand  $\frac{1}{\sqrt{4+3x}}$  in ascending powers of  $x$ , up to and including the term in  $x^2$ , simplifying the coefficients. [4]

### Question 4

Expand  $\frac{1+3x}{\sqrt{1+2x}}$  in ascending powers of  $x$  up to and including the term in  $x^2$ , simplifying the coefficients. [4]

## Question 5

Expand  $(1 + 3x)^{-\frac{1}{3}}$  in ascending powers of  $x$ , up to and including the term in  $x^3$ , simplifying the coefficients. [4]

## Question 6

Expand  $(2 - x)(1 + 2x)^{-\frac{3}{2}}$  in ascending powers of  $x$ , up to and including the term in  $x^2$ , simplifying the coefficients. [4]