

## Level 2 Mathematics, 2004

### 90284 Manipulate algebraic expressions and solve equations

#### QUESTION ONE

Simplify:  $\frac{x^2 - 4x + 4}{x - 2}$

#### QUESTION TWO

Simplify fully:  $(16x^6)^{\frac{1}{2}}$

(c)  $2x^2 + x = 6$

#### QUESTION THREE

Write as the log of a single number:  $\log 144 - \log 24$

#### QUESTION FOUR

Solve the following equations

(a)  $2x(2x + 1)(x - 4) = 0$

(b)  $\log_x 64 = 3$

## ANSWERS

	Assessment Criteria	No.	Evidence	Code	Judgement	Sufficiency
Achievement	Manipulate algebraic expressions and solve equations.	1	$x - 2$	A1	Or equivalent.	<b>Achievement:</b> Part 1: Algebraic expressions Two of Code A1 No skills repeated <b>AND</b> Part 2: Equations: Two of Code A2
		2	$4x^3$	A1	Or equivalent.	
		3	$\log 6$	A1	Or equivalent.	
		4(a)	$x = 0, 4, -0.5$	A2	All answers required.	
		4(b)	$x = 4$	A2	No alternative.	
		4(c)	$x = -2, 1.5$	A2	Both answers required.	