Level 2 Mathematics, 2006

90284 Manipulate algebraic expressions and solve equations

QUESTION ONE

Expand $(2x + 3)(x - 4)(x + 2)$

QUESTION TWO

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

QUESTION THREE

Simplify $\dfrac{3}{x} + \dfrac{2x}{(x-1)}$

QUESTION FOUR

Solve

(a) $2x^2 + 7x - 4 = 0$

(b) $6x - 4 < 3x - 12$

(c) $\log_x 64 = 3$

ANSWERS

	Achievement Criteria	No.	Evidence	Code	Judgement	Sufficiency
ACHIEVEMENT	Manipulate algebraic expressions.	1	$2x^3 - x^2 - 22x - 24$	A1	Or equivalent. Any order.	ACHIEVEMENT: **4 code A**
		2	$4x^3$	A1	No alternative.	
		3	$\dfrac{3(x-1) + 2x^2}{x(x-1)}$ or $\dfrac{2x^2 + 3x - 3}{x^2 - x}$	A1	Or equivalent.	
	Solve equations.	4a	$x = -4$, 0.5	A2	Both answers required.	
		4b	$x < -2\dfrac{2}{3}$	A2	Accept the decimal equivalent.	
		4c	$x = 4$	A2	No alternative.	