1			$\frac{2x+1}{3x+5}$	M1	for $(3x \pm 5)(2x \pm 1)$ or $(2x+1)(2x-1)$
				M1	$\frac{1}{(3x \pm 5)(2x \pm 1)} \times (2x+1)(2x-1)$
				A1	

2		$a = 4,\ b = -42$		M1	for at least two terms from $2(x-3)(x+3)$, $(x+2)(x+3)$, $(x-6)(x-3)$
				M1	(dep) for the correct expansion of at least two expressions, irrespective of signs, eg. $2x^2 - 18$, $x^2 + 2x + 3x + 6$, $x^2 - 6x - 3x + 18$ oe
				M1	for $2x^2 - 18 - x^2 - 5x - 6 - x^2 + 9x - 18$
				A1	for $a = 4,\ b = -42$ (accept $4x - 42$)

3	(a)		$\frac{x+4}{2x+3}$	M1	Factorising the denominator $(2x \pm 3)(x \pm 4)$ or $2\left(x \pm 1\frac{1}{2}\right)(x \pm 4)$
				M1	Factorising the numerator $(x-4)(x+4)$
				A1	oe
	(b)		$v = \frac{15t}{w+30}$	M1	A correct step towards solution e.g. expanding brackets to get $15t - 30v$ or multiply both sides by v
				M1	For a method to rearrange the formula to isolate terms in v eg $vw + 30v = 15t$
				A1	oe

4	(a)	$(a-b)(a+b)$	B1	cao	Accept reversed brackets
	(b)	$12(x^2+1)$	M1	for using 'a' $= x^2 + 4$ and 'b' $= x^2 - 2$	
				OR multiplying out both brackets, at least one fully correct	Correct 4 terms if not simplified or 3 terms if simplified
			M1	(dep) for a correct expression for ('a' + 'b')('a' − 'b') with no additional brackets, simplified or unsimplified eg $(x^2 + 4 + x^2 - 2)(x^2 + 4 - x^2 + 2)$ **or** $(2x^2 + 2) \times 6$	
					OR ft for a correct expression without brackets, simplified or unsimplified eg $x^4 + 8x^2 + 16 - x^4 + 4x^2 - 4$
			A1	for $12(x^2+1)$ **or** $12x^2 + 12$ oe	

5	(a)	m^7	B1	cao	
	(b)	$125n^3p^9$	B2	cao	Allow multiplication signs
			(B1	for 2 of 3 terms correct in a single product)	$125n^3p^x$ or $125n^xp^9$ where $x \neq 0$ or an^3p^9 where a is a number
	(c)	$8q^6r^3$	B2	cao	Allow multiplication signs
			(B1	for 2 of 3 terms correct in a single product)	$8q^6r^x$ or $8q^xr^3$ where $x \neq 0$ or aq^6r^3 where a is a number

6	$9p + 13$	M1	for method to expand one bracket, eg $5 \times p + 5 \times 3$ $(= 5p + 15)$ or $2 \times 1 - 2 \times 2p$ $(= 2 - 4p)$ or $-2 \times 1 - 2 \times -2p$ $(= -2 + 4p)$	If an attempt is made to multiply by −2 in the second brackets then it must be done consistently.
		A1	cao	

7	(a)	1	B1	cao	
	(b)	$\frac{8}{x-4}$	B1	cao	
	(c)	$27n^{12}w^{6}$	B2	cao	
			(B1	for two of 27, n^{12}, w^{6} in a product)	