1	(a)	$3 \times 4 + 2 \times 7$ **or** $12 + 14$		2	M1	
			26		A1	
	(b)	$2 \times (-6)^2 + 3 \times -2$ **or** $72 - 6$ **or** $2 \times -6 \times -6 + 3 \times -2$		2	M1	
			66		A1	
	(c)		$T = 6g + 12h$	3	B3	for $T = 6g + 12h$ oe (B2 for $6g + 12h$ oe **or** $T = 6g + ah$ **or** $T = bg + 12h$ **or** $T = 12g + 6h$ oe) (B1 for $6g + ah$ **or** $bg + 12h$ **or** $12g + 6h$ **or** for an incorrect expression in g and h eg $T = g + h$)
						Total 7 marks

2	c	$7 \times 2 - 5 \times 4$			M1
			-6	2	A1
	d	$2 \times (-3)^2 - 5$			M1
			13	2	A1

3	(b)	$2 \times 5 + 3 \times 8$ **or** $10 + 24$			2	M1 for substituting the values of a and b into P
				34		A1
	(c)	$16 = 2a + 3 \times 20$ **or** $16 = 2a + 60$	$P - 3b = 2a$		3	M1 for substituting the values of P and b into the equation **or** rearranging the equation $P = 2a + 3b$ for $2a$ correctly
		$16 - 60 = 2a$ $-44 = 2a$ oe **or**	$16 - 2 \times 30 = 2a$ **or** $16 - 60 = 2a$			M1 for rearranging the equation for $2a$ correctly **or** substituting the values of P and b into the correctly rearranged equation
				-22		A1

4	(a)	$5 \times (-2)^2 - (-2)^3$ ($= 20 - -8$)		2	M1	for correct expression or at least one of 20 or 5×4 or $- - 8$ or (+) 8
			28		A1	

5	(b)	e.g. $1.5 \times 2.4 - (-5.6)$ **or** $1.5 \times 2.4 + 5.6$ **or** $3.6 + 5.6$ oe		2	M1	for a correct substitution
			9.2		A1	accept $\frac{46}{5}$ or $9\frac{1}{5}$

6	(b)	eg $8 \times 5 - 3 \times 4$ **or** $40 - 12$		2	M1	for a complete method
			28		A1	

7	(d)	e.g. $5 \times \left(\frac{1}{2}\right)^2 - \frac{1}{4}$ or $5 \times (0.5)^2 - 0.25$ oe or $5 \times \frac{1}{4} - \frac{1}{4}$ oe or $5 \times 0.25 - 0.25$ oe		2	M1	for substituting values for v and w
			1		A1	oe e.g. $\frac{4}{4}$

8	(b)	3×12 (= 36) and 5×4 (= 20)		2	M1

9	(c)	$5 \times 4.2 - 6 \times -2.5$ **or** $21 - -15$ **or** $21 + 15$ oe		2	M1
			36		A1

10	(a)	$18 - -3 \times 5$ or $18 - -15$ or $18 + 15$			2	M1
		Correct answer scores full marks (unless from obvious incorrect working)	33			A1

11	(c)	$46=5\times17+4r$ oe or $46=85+4r$ oe oe or $46-5\times17(=4r)$ oe or $46-85(=4r)$ oe or $r=\frac{T-5g}{4}$		3	M1
		$(r=)\frac{46-85}{4}$ oe or $(r=)\frac{46-5\times17}{4}$ oe			M1
		Correct answer scores full marks (unless from obvious incorrect working)	−9.75		A1 oe eg $\frac{-39}{4}$
	(d)	25 ± ……. **or** ……. − 12 **or** $(-5)^2-4\times3$ or $(-5)^2-4(3)$ or $-5\times-5-4\times3$ or $-5\times-5-4(3)$		2	M1 for either 25 or –12 in the correct place **or** the correct substitution shown with brackets around –5
		Correct answer scores full marks (unless from obvious incorrect working)	13		A1 (M0A0 for −37 without any working)

12	(c)	9 + ... **or** ……+ 10 **or** $(-3)^2+5\times2$ **or** $-3\times-3+5\times2$		2	M1	For either 9 or 10 in the correct place or the correct substitutions (brackets around –3 squared, unless recovered)
		Correct answer scores full marks (unless from obvious incorrect working)	19		A1	