Paper 1MA1: 1F				
Question	**Working**	**Answer**	**Mark**	**Notes**
3 **Q1**		42	B1	cao

Paper: 1MA1/1F				
Question	**Working**	**Answer**	**Mark**	**Notes**
3 (a)		56*ef*	B1	cao
Q2 (b)		12.5	B1	oe

Paper: 1MA1/2F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
10 (a)	38	B1	cao	
(b)	6	M1	starts process to find input using inverse operations eg 28 + 2 **or** sight of +2 ÷ 5 **or** by forming an equation eg $x \times 5 - 2 = 28$	+2 ÷ 5 could be seen in a flow diagra
Q3		A1	cao	

Paper: 1MA1/3F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
1 (i)	43.7	B1	cao	
Q4 (ii)	$\frac{5}{7}$	B1	$\frac{5}{7}$ oe	Accept any other equivalent fraction to $\frac{5}{7}$

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
16 (a)	14	M1	for 4×5 and 3×-2, the substitution may be seen in two separate calculations, eg 4×5 (= 20) and 3×-2 (= −6)	
		A1	cao	
(b)	$4e^2 + 8e$	B2	for $4e^2 + 8e$	
Q5		(B1	for $4e^2$ or $8e$)	Note: $4e^2 + 8e = 12e^3$ for example gets B1 only
(c)	11	M1	for a correct first step eg $3 \times m - 3 \times 4 = 21$ oe **or** $m - 4 = 21 \div 3$ (= 7) oe	Showing ÷3 by each side of equation is sufficient
		A1	cao	

Paper: 1MA1/2F					
Question		**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
11	(a	17	B1	cao	
	(b)	12	B1	cao	
Q6	(c)	5.5	B1	Accept $\frac{11}{2}$, $5\frac{1}{2}$ oe	

Paper: 1MA1/2F					
Question		**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
8	(a)	43	B1	cao	
Q7	(b)	– 20 or ÷ 3	B1	for ÷ 3 **or** – 20 **or** $\times \frac{1}{3}$ **or** + –20	

Paper: 1MA1/3F			
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
19 **Q8**	17	M1 A1	for correctly expanding the bracket, as part of an equation to get $4x - 24 = 44$ **or** for dividing both sides of the equation by 4 as a first step, eg $\frac{4(x-6)}{4} = \frac{44}{4}$ oe cao	Award M1 for an embedded value of 17 if not identified as the answer

Paper: 1MA1/1F					
Question		**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
10	(a)	4	B1	cao	
	(b)	8	B1	cao	
Q9	(c)	3	M1 A1	for a correct first step eg subtracting 2 from both sides **or** dividing all terms by 6 cao	Division by 6 must be ALL terms

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
12 (a)	11	B1	cao	
(b)	22	M1	Starts to find input using inverse operations, 41 + 3 (= 44) **or** sight of +3 **and** ÷2 **or** derivation of equation eg $2n - 3 = 41$	+3 and ÷2 could be seen in a flow diagra Evidence could be provided by algebraic statement, numerical statements or by diagrams
Q10		A1	cao	

Paper: 1MA1/2F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
10 (a)	12	B1	cao	
Q11 (b)	4	B1	cao	

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
15 (a)	$2a + 2d$	B1	cao	Accept $2 \times a + 2 \times d$
(b)	$y(6y - 5)$	B1	cao	Accept $y \times (6y - 5)$
(c)	11	M1	for isolating x terms, eg $4x = 37 + 7$ or $4x = 44$ **or** for $x - \frac{7}{4} = \frac{37}{4}$ **or** for $37 + 7 = 44$ followed by "44" ÷ 4 (= 11)	
Q12		A1	cao	

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
8 (a)	7	B1	cao	
(b)	6	M1	for $4n$ (= 24) or 24 ÷ 4	
Q13		A1	cao	

Paper: 1MA1/2F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
12 (a)	9	B1	cao	
(b)	6	M1	starts to find input using inverse operations eg 154 ÷ 11 (= 14) **or** indicates ÷ 11 **and** − 8 **or** derivation of equation eg (8+ *n*) × 11 = 154 **or** starting to solve for unknown eg 154 − 8 × 11 (= 66)	÷11 and −8 could be seen in a flow diagram Evidence could be provided by algebraic statement, numerical statements or by diagram
Q14		A1	cao	

Paper 1MA1: 1F						
Question	**Working**	**Answer**	**Mark**	**Notes**		
28		Shows reasoning to reach *y*=3	M1	forms equation eg $2x + 6 = 5x - 9$	48÷3 (=16)	$3(2x + 6) = 48$ **or** $3(5x - 9) = 48$, condone missing bracket
			M1	isolates *x* and number terms $3x = 15$	forms equation $2x+6=$"16" **or** $5x - 9=$ "16"	Isolates *x* and number terms 6x = "30" **or** $15x =$ "75"
Q15			M1	substitutes "5" into side length eg 2 × 5 + 6 (=16)	isolates *x* and number terms $2x=$ "10" **or** $5x =$ "25"	forms the second equation
			A1	48÷16=3 **or** 16×3=48	shows *x*=5 for both solutions	*x*=5 from 2 different equations.

Paper: 1MA1/2F				
Question	**Working**	**Answer**	**Mark**	**Notes**
16		$1\frac{1}{2}$	M1	for correct expansion of the bracket or dividing all terms by 3 as a first step eg $3x - 3$ or $(5x - 6)/3 = 3(x - 1)/3$
Q16			M1	for isolating terms in *x* on one side of an equation eg $5x - 6 - 3x = -3$ or both constants on one side of an equation, eg $5x = 3x - 3 + 6$, ft $5x - 6 = 3x - 1$
			A1	for $1\frac{1}{2}$ oe

Paper: 1MA1/3F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
17 (a)	Full working seen	M1	for an initial step with the expressions eg doubling $2x + 1$ or $x + 2$ **or** halving $4x$ **or** for identifying *CD* as $x + 2$ **or** for identifying *DE* as $2x + 1$	May be seen in working or on diagram
		M1	for an expression for the total perimeter, eg $4x + 2 \times (2x + 1) + 2 \times (x + 2)$	
Q17		C1	for full simplification and equating to 18	
(b)	1.2	M1	for isolating terms in x can ft an equation stated in (a) provided in form $ax + b = c$	$10x = 18 - 6$
		A1	for 1.2 oe	Accept $\frac{12}{10}$ or $\frac{6}{5}$

Paper: 1MA1/3F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
25	3.8	M1	for a correct first step, eg $5 - x = 2(2x - 7)$ or $5 - x = 4x - 14$ or $\frac{5}{2} - \frac{x}{2} = 2x - 7$	Method must show LHS ×2 and both terms on RHS ×2 or $5 - x$ and both terms on RHS ×2
		M1	(dep) for isolating terms in x eg $4x + x = 14 + 5$ or $-\frac{x}{2} - 2x = -7 - \frac{5}{2}$	eg $-4x$ both sides with -5 both sides or $+x$ both sides with $+14$ both sides
Q18		A1	oe	Accept $\frac{19}{5}$, $3\frac{4}{5}$ oe but not $\frac{-19}{-5}$ oe

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
16 (a)	Explanation	C1	for explanation, eg AB cannot be zero (cm) **or** shows AB to be zero, eg $4 \times 0.5 - 2 = 0$	Accept say 'AB would then be 0'
(b)	2.5	P1	for a correct expression for AD, eg $3(4x - 2)$ **or** $12x - 6$ **OR** $2(3AB + AB) = 64$ oe **or** $3AB + AB = 32$ oe **or** $AB = 8$ **OR** for an equation with mixed variables, eg. $6AB + 2(4x - 2) = 64$	May be seen on diagram
		P1	for forming a correct equation in x, eg $4x - 2 + 4x - 2 + 3(4x - 2) + 3(4x - 2) = 64$ **or** $4x - 2 = 8$ **or** $4x - 2 + 3(4x - 2) = 32$	
Q19		A1	cao	

Paper: 1MA1/1F				
Question	**Answer**	**Mark**	**Mark scheme**	**Additional guidance**
16 **Q20**	19	P1 P1 P1 A1	for process of finding perimeter in terms of x, eg $2x - 5 + x + 1 + x - 1 + 2x$ oe for process to form equation, eg "$6x - 5$" = 52 (dep on P2) for a correct process to find x, eg $(52 + 5) \div 6$ (= 9.5) **or** for a correct process to find $2x$, eg $(52 + 5) \div 3$ **or** ft an equation of the form $ax + b = c$, cao	 This mark may be awarded for a correct but unsimplified equation, eg. $2x - 5 + x + 1 + x - 1 + 2x = 52$ oe Trial & Improvement attempts must be fully correct giving $x = 9.5$ before any credit given a, b and c must be clearly stated but need not be correct