Q1. (2019)

27	**Alternative method 1 – add 6 to both sides first**		
	$x + 6 = 2y$ or $-x - 6 = -2y$ or $\frac{x+6}{2}$ or $\frac{x}{2} + 3$ or $\frac{1}{2}(x + 6)$	M1	oe
	$y = \frac{x+6}{2}$ or $y = \frac{x}{2} + 3$ or $y = \frac{1}{2}(x + 6)$	A1	allow order reversed do not allow further incorrect work eg attempts to divide only the 6 by 2 Condone $y = (x + 6) \div 2$ for M1A1
	Alternative method 2 – divide both sides by 2 first		
	$\frac{x}{2} = y - \frac{6}{2}$ or $\frac{x}{2} = y - 3$ or $\frac{x+6}{2}$ or $\frac{x}{2} + 3$ or $\frac{1}{2}(x + 6)$	M1	allow $\frac{2y}{2}$ for y
	$y = \frac{x+6}{2}$ or $y = \frac{x}{2} + 3$ or $y = \frac{1}{2}(x + 6)$	A1	allow order reversed do not allow further incorrect work eg attempts to divide only the 6 by 2 Condone $y = (x + 6) \div 2$ for M1A1
	Alternative method 3 – flow diagram		
	$y \rightarrow 2y \rightarrow 2y - 6$ $\leftarrow x + 6 \leftarrow x$	M1	allow $2 \times y$ or $y \times 2$ for $2y$ ignore any operations seen on arrows
	$y = \frac{x+6}{2}$ or $y = \frac{x}{2} + 3$ or $y = \frac{1}{2}(x + 6)$	A1	allow order reversed do not allow further incorrect work eg attempts to divide only the 6 by 2 Condone $y = (x + 6) \div 2$ for M1A1
	Additional Guidance		
	Allow 0.5 for $\frac{1}{2}$ throughout		

Q2. (2020)

Q	Answer	Mark	Comments
28	**Alternative method 1**		
	$3c = d + 2$ or $3c - 2$	M1	
	$d = 3c - 2$ or $d = -2 + 3c$ or $3c - 2 = d$ or $-2 + 3c = d$	A1	
	Alternative method 2		
	$c - \frac{2}{3} = \frac{d}{3}$ or $3\left(c - \frac{2}{3}\right)$	M1	
	$d = 3\left(c - \frac{2}{3}\right)$	A1	
	Additional Guidance		
	Flow chart method, with incorrect final answer: $d \rightarrow +2 \rightarrow \div 3 \rightarrow c$ and $c \rightarrow \times 3 \rightarrow -2 \rightarrow d$		M1A0
	Condone × signs for M1 but not A1 Condone $c3$ for M1 but not A1		

Q3. (2024)

11 A window cleaner uses this formula.

$$C = 2W + 5$$

C = cost, in £, for the customer

W = number of windows to be cleaned

Q	Answer	Mark	Comments
11(b)	9.5 or $9\frac{1}{2}$ or valid reason	B1	eg shows that 9 windows cost £23 and 10 windows cost £25 or you can't have half a window
	Additional Guidance		
	Calculated values must be correct		
	(19, 21,) 23, 25 (, 27…)	B1	
	Even number + 5 can't be even / can't end in a 4	B1	
	There's no whole number you can times by 2 to get to 19 There's no number you can times by 2 to get to 19	B1 B0	
	Even + 5 = odd, 24 is even Even + 5 = odd	B1 B0	
	Costs are all always odd numbers, 24 is even Costs are all always odd numbers	B1 B0	
	19 is a prime number and so doesn't divide exactly by 2 19 is a prime number	B1 B0	

Q4. (2024)

Q	Answer	Mark	Comments
24	$7x - 4x$ or $3x$ or $4x - 7x$ or $-3x$ or $-22 - 29$ or -51 or $22 + 29$ or 51	M1	
	$3x = 51$ or $-3x = -51$	A1	$\frac{51}{3}$ or $\frac{-51}{-3}$ implies M1A1 implied by correct answer
	17	A1ft	ft M1A0 from an equation of the form $\pm 3x = a$ or $bx = \pm 51$
	Additional Guidance		
	Trial and improvement scores 0 or 3		
	If a follow through answer does not simplify to an integer, accept it as a fraction, mixed number or decimal to at least 1dp. eg from $3x = 7$ accept $\frac{7}{3}$ or $2\frac{1}{3}$ or 2.3 or better Ignore any attempt to convert a correct ft fraction	M1A0A1ft	
	Embedded answer	M1A1A0	

Q5. (2024)

Q	Answer	Mark	Comments
26b	$5y \geqslant 11 - 14$ or $5y \geqslant -3$ or $14 - 11 \geqslant -5y$ or $3 \geqslant -5y$ or $y + \frac{14}{5} \geqslant \frac{11}{5}$ or $-\frac{3}{5}$	M1	oe fractions or decimals may be seen in an equation or inequality
	$y \geqslant -\frac{3}{5}$ or $-\frac{3}{5} \leqslant y$	A1	oe fraction or decimal for $-\frac{3}{5}$
	Additional Guidance		
	Allow use of other inequality signs or = if recovered		
	Accept any letter for y		
	Condone $\frac{-3}{5}$ or $\frac{3}{-5}$ for $-\frac{3}{5}$		
	Ignore any attempt to convert $-\frac{3}{5}$ to a decimal		
	$y \geqslant -\frac{3}{5}$ in working and $-\frac{3}{5}$ on answer line		M1A0