Q1. (2018)

7	x-coordinate of C = 12 or y-coordinate of C = 8 or 12 marked on x-axis below C and 8 marked on y-axis left of C or x-coordinate of D = 6 + 6 + 6 or y-coordinate of D = 2 + 3 + 3 + 3 or $\frac{x}{6} = 3$ or $6 = (2 \times 0 + x) \div 3$ or $\frac{y-2}{5-2} = 3$ or $5 = (2 \times 2 + y) \div 3$ or 18 marked on x-axis below D or 11 marked on y-axis left of D	M1	oe sets up a correct equation for x-coordinate of D or y-coordinate of D
	(C is the point) (12, 8) or (D is the point) (18, …) or (…, 11) or 18 marked on x-axis below D and 11 marked on y-axis left of D	A1	condone missing brackets if intention is clear
	18, 11	A1	

Additional Guidance	
(12,8 , 18,11) on answer line with previous link to C and D (12,8 , 18,11) on answer line with no previous link to C and D	M1A1A1 M1A1A0
12, 8 on answer line with no other working	M1A1A0
Accept correct working on diagram and correct answer on diagram if not contradicted by answer line	
11, 18 on answer line does not score the last mark, but may score M1A0 or M1A1	
11, 18 with no working	M0A0A0

Q2. (2021)

Question	Answer	Mark	Comments
9	(4, 16)	B2	may be on diagram B1 one correct coordinate SC1 (16, 4)

Additional Guidance	
B1 may be scored from 4 at the vertex vertically below Q or from 16 at the vertex vertically above P if not contradicted by the answer	

Q3. (2023)

Q	Answer	Mark	Comments
	Alternative method 1 – using the equations of the lines		
24	$\frac{22-y}{8-0} = 2$ or $22 = 2 \times 8 + c$ or $(c =)\ 22 - 2 \times 8$ or $c = 6$ or P is at (0, 6) or $(PR =)\ y = 2x + 6$ or y-coordinate of P is 6 or y-coordinate of Q is 6	M1	oe equation using any letter y is the y-coordinate of P ignore missing brackets may be seen on diagram may be seen on diagram
	$2m = -1$ or $(m =) -\frac{1}{2}$	M1	oe gradient of RQ
	$22 =$ their $-\frac{1}{2} \times 8 + c$ or $22 = -4 + c$ or $c = 26$ or $(RQ =)\ y = -\frac{1}{2}x + 26$	M1dep	oe equation in c dep on previous mark oe equation of RQ
	their $(-\frac{1}{2}x + 26) =$ their 6 or x-coordinate of Q is 40	M1dep	oe equation in x where x is the x-coordinate of Q dep on M3 $-\frac{1}{2} = \frac{22 - \text{their } 6}{8 - x}$ implies M4 if their 6 is correct or from correct working
	(40, 6)	A1	

24 cont	**Alternative method 2 – using similar triangles**		
	Drops a perpendicular from R to point S on PQ and uses $RS = 2PS = 16$ to work out that P is at (0, 6)	M1	any or no letter eg $22 - 2 \times 8$
	$2m = -1$ or $(m =) -\frac{1}{2}$ or $\frac{RS}{SQ} = \frac{1}{2}$	M1	oe gradient of RQ
	16×2 or 32	M1dep	length of SQ may be seen on diagram dep on previous mark
	$8 +$ their 32 or x-coordinate of Q is 40	M1dep	
	(40, 6)	A1	
	Additional Guidance		
	Note that 40 (for the x-coordinate of Q) implies M3 (on alt 2) and implies M4 if 6 is also seen (on alt 1)		