

Yr 9 core mod 5 rev sheet 2 Answers

1)

17	(a) D	1	
	(b) E	1	
	(c) G	1	
	(d) F	1	

2)

19	$(y =) -\frac{1}{3}x + 2$ cao	3	B1 for gradient of $\pm \frac{1}{3}$ oe (Allow ± 0.33 or better) B1 ind for $mx + 2$ where $m \neq 0$.
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3)

12	(a) Correct ruled line	1	B2ft their ruled line through (0, 3) for two intersections given to 1 decimal place or B1 for -2.70 to -2.75 and 0.70 to 0.75 or B1ft their ruled line through (0, 3) for two intersections not given to 1 decimal place
	(b) $-2.7, 0.7$	1, 1ft	

4)

17	(a) $y = -2$ or $y + 2 = 0$	1	Must at least go through $(-1, -1)$ B1 $3x + j$ $j \neq -1$ or 2 or $kx + 2$ $k \neq 3$ SC1 for $3x + 2$ then spoiled by the final answer
	(b) (i) Ruled line parallel to B through (0, 2)	1	
	(ii) $(y =) 3x + 2$ cao final answer	2	

5)

14	(a) (0, 5)	1	$k \neq 5$
	(b) -2	1	
	(c) $y = -2x + k$	1	

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6)

6 (a)	-1.5 -10 10 6 1.2	3	B2 for 3 or 4 correct, B1 for 2 correct
(b)	14 points plotted accurately 2 smooth correct curves No part across y-axis	P3ft C1 B1	P2ft for 11, 12 or 13 points, P1ft for 8, 9 or 10 Indep
(c)	0.4 to 0.5	1	
(d)	-3 -1 1	2	B1 for 2 correct
(e)	Ruled line from (-3, -3) to (3, 1)	2	SC1 for freehand or short ruled line – must meet curve twice or P1 for their 3 points plotted
(f)	(-1.5, -2) and (3, 1)	1, 1	

7)

8 (a)	y values -1, -2, -3, 3, 2, 1	3	W2 4 or 5 correct W1 2 or 3 correct
(b)	12 points plotted Two smooth correct curves No part across y axis	P2ft C1 B1	P1ft for 10 or 11 'correct'. Independent
(c)	2	1	
(d) (i)	$y = x$ ruled	1	At least 2 diagonal large (4×4) squares.
(ii)	(4 to 4.5, 4 to 4.5) (-4 to -4.5, -4 to -4.5)	2ft	1 mark for each point Ft from their intersections
(e)	$y = -x$ ruled	1ft	Follow through reflection of their (d)(i) in the y axis.

8)

3 (a)	3, 5, -1	3	1 each
(b)	7 points plotted reasonable freehand curve	P3ft C1	P2 for 5 or 6 points, P1 for 3 or 4 points
(c)	-1.3, 2.3 <u>strict fit</u> their intercept with $y = 2$	2ft	W1 for either
(d) (i)	-7, -1, 5	2	W1 for 2 correct
(ii)	Correct ruled line	2	SC1 for freehand line, or ruled short line crossing curve twice Or their 3 points plotted
(iii)	2	1	cao
(e)	(-3, -7) and (2, 3)	2ft	1 for either