

Quadratic Graphs

November 2023 Paper 2

Question	Answer	Mark	Mark scheme	Additional guidance
20 (a)	4 0 -2 -2 0 4	B2	for all 4 correct values	
		(B1)	for 2 or 3 correct values)	
(b)	Graph	M1	ft (dep B1) for plotting at least 4 points correctly	
		A1	for a fully correct curve drawn	
				Accept a freehand curve drawn that is not made of line segments.

November 2024 Paper 2

Question	Answer	Mark	Mark scheme	Additional guidance
24 (a)	5, (0), -3, -4, (-3), 0, 5	B2 (B1	for all 5 correct values for at least 2 correct values)	Accept freehand curves drawn that are not line segments Ignore anything drawn outside the required range
(b)	Graph drawn	B2 (B1	for a fully correct graph ft (dep on B1 in (a)) for plotting at least 5 of the points from their table correctly)	

June 2024 Paper 2

Question		Answer	Mark	Mark scheme	Additional guidance
24	(a)	(6) 2 (0) 0 (2) 6	B2	for all 3 values correct	Accept a freehand curve drawn that is not made of line segments Ignore anything drawn outside the required range
			(B1)	for 1 or 2 correct values)	
	(b)	Graph drawn	B2	for a fully correct graph	
			(B1)	ft (dep on B1 in (a)) for plotting at least 5 of the points from their table correctly)	
	(c)	-1.7 to -1.5 and 2.5 to 2.7	M1	for drawing the line $y = 4$ or reading off intersections where $y = 4$ or one correct solution or both solutions given as coordinates, eg (-1.6, 2.6) or (-1.6, 4) and (2.6, 4)	ft their graph for this mark Accept these coordinates reversed
			A1	for answers in the range -1.7 to -1.5 and 2.5 to 2.7 or ft their graph with at least 2 solutions	Algebraic methods score 0 marks

November 2022 Paper 2

Question	Answer	Mark	Mark scheme	Additional guidance
24 (a)	4	B1	for 4	Condone (0,4) or 0,4
(b)	(3, -5)	B1	cao	
(c)	5.1 to 5.3 and 0.7 to 0.9	M1 A1	for a correct method, eg marking both intercepts with x -axis or one correct solution for answers in the range 5.1 to 5.3 and 0.7 to 0.9	Accept both solutions given as a coordinate for M1 eg (5.2, 0.8) or (0.8, 5.2) or (5.2, 0) and (0.8, 0)

November 2021 Paper 2

Question	Answer	Mark	Mark scheme	Additional guidance
24 (a)	(10), 5, (2), 1, 2, (5), 10	B2 (B1	for all 4 values correct for 2 or 3 correct values)	
(b)	Graph	M1 A1	ft (dep on B1) for plotting at least 5 of their points correctly for a fully correct curve drawn	Accept a freehand curve drawn that is not made of line segments
(c)	-0.65 to -0.8 and 2.65 to 2.8	M1 A1	for $y = 4$ drawn or intersection with $y = 4$ or $y = x^2 - 2x - 2$ drawn or 1 correct value (ft a quadratic) ft a quadratic graph or for answers in the range 2.65 to 2.8 and -0.65 to -0.8	If answers stated as coordinates, award M1 for both coordinates and M0 for one coordinate

June 2023 Paper 3

Question	Answer	Mark	Mark scheme	Additional guidance
26 (a)	(1, -3)	B1	cao	
(b)	-0.7 or 2.7	B1	for an answer in the range -0.8 to -0.6 or 2.6 to 2.8	

June 2022 Paper 1

Question	Answer	Mark	Mark scheme	Additional guidance
28 (a)	5,(1),(-1),-1,1,5	B2 (B1	for all 4 values correct for 2 or 3 correct values)	
(b)	Graph drawn	B2 (B1	for a fully correct graph ft (dep on B1 in (a)) for plotting at least 5 of the points from their table correctly)	Accept a freehand graph drawn that is not made of line segments Ignore anything drawn outside the required range
(c)	0.3 to 0.5 and 2.5 to 2.7	M1 A1	for a correct method, eg marking intercepts with x -axis or one correct solution or both solutions given as a coordinates, eg (0.4, 2.6) or (0.4, 0) and (2.6, 0) for answers in the range 0.3 to 0.5 and 2.5 to 2.7 or ft their graph with at least 2 solutions	ft their graph for this mark Accept these coordinates reversed

June 2020 Paper 3

Question	Answer	Mark	Mark scheme	Additional guidance
28 (a)	-2, 4	B1	cao	If answers are stated as coordinates, award M1 for both coordinates and M0 for one coordinate. With no extras
(b)	0.55 to 0.65, 3.35 to 3.45	M1	for correct method, eg marking intercepts with x -axis or one correct answer or both solutions given as a coordinate eg (0.6, 3.4) or (0.6, 0) (3.4, 0)	
		A1	for answers in the ranges 0.55 to 0.65 and 3.35 to 3.45	