

Oxford Revise | AQA GCSE Maths Foundation | Answers

Chapter 11 Quadratic, cubic, and reciprocal graphs

Question	Answer	Extra information	Marks
11.1 (a)		<p>Correct overall shape drawn. Must be symmetrical about the y-axis.</p> <p>(0, 0) clearly labelled</p>	<p>1</p> <p>1</p>
11.1 (b)	$x = 0$		1

Question	Answer	Extra information	Marks
11.2 (a)		<p>Plotting all the points correctly</p> <p>Smooth curve drawn through the points</p>	<p>1</p> <p>1</p>
11.2 (b)	(0.5, -1.25)	Answer reasonably close to (0.5, -1.25)	1
11.3 (a)	Approximately 1.4 and -1.4	1.4 (or close) -1.4 (or close)	1 1
11.3 (b)	(0, 2)		1
11.3 (c)	Draw the line $y = -3$. This line cuts the graph when $x \approx 2.2$ and $x \approx -2.2$	Identifying the points where $y = -3$ Correct answer (both solutions)	1 1
11.4	Top to bottom in the table: C, D, A, B	Only one correct Two correct All correct	1 1 1

Question	Answer	Extra information	Marks
11.5		<p>Points plotted correctly</p> <p>Smooth curve through the points</p>	<p>1</p> <p>1</p>
11.6		<p>Correct shape drawn. No need to label axes</p> <p>(0, 1) clearly labelled</p>	<p>1</p> <p>1</p>

Question	Answer	Extra information	Marks																		
11.7 (a)	<table border="1"> <tr> <td>x</td> <td>-4</td> <td>-2</td> <td>-1</td> <td>-0.5</td> <td>0.5</td> <td>1</td> <td>2</td> <td>4</td> </tr> <tr> <td>y</td> <td>-1</td> <td>-2</td> <td>-4</td> <td>-8</td> <td>8</td> <td>4</td> <td>2</td> <td>1</td> </tr> </table>	x	-4	-2	-1	-0.5	0.5	1	2	4	y	-1	-2	-4	-8	8	4	2	1	At least three values correct	1
	x	-4	-2	-1	-0.5	0.5	1	2	4												
y	-1	-2	-4	-8	8	4	2	1													
		All correct	1																		
11.7 (b)		All points correctly plotted Graph correct (should not touch either axis)	1 1																		
11.8	Graph A		1																		
11.9	Linear: B Quadratic: A Cubic: D Reciprocal: C		2																		

Question	Answer	Extra information	Marks
11.10	$\frac{2(x+3)^2}{(x+3)} = \frac{2(x+3)\cancel{(x+3)}}{\cancel{(x+3)}} = 2(x+3)$	Also accept $2x+6$	1
11.11	Find the LCM of the denominators 5 and 8. LCM = 40 $\frac{4}{5} = \frac{32}{40}$ and $\frac{7}{8} = \frac{35}{40}$ So, $\frac{7}{8}$ is the larger fraction.	One mark for converting to equivalent fractions with the same denominator One mark for the correct explanation.	1 1