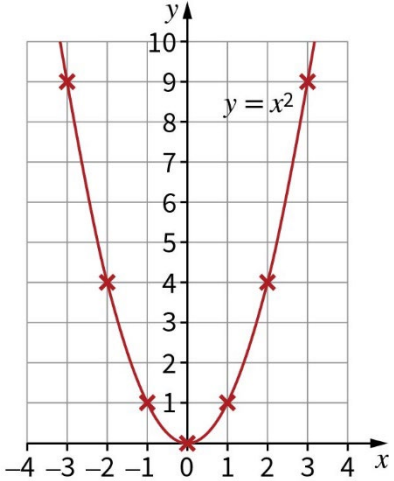


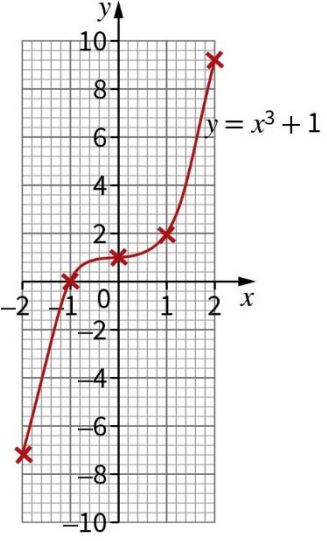
Oxford Revise | Edexcel GCSE Maths Foundation | Answers

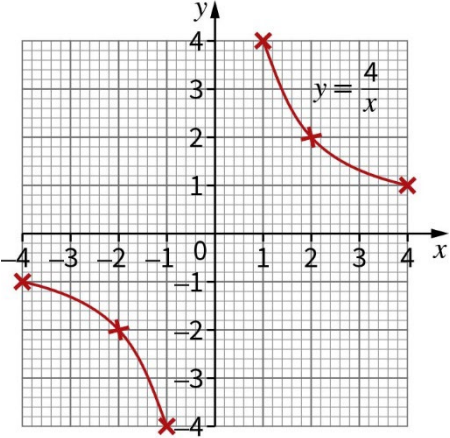
Chapter 11 Quadratic, cubic, and reciprocal graphs

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	<p>1.4 (or close)</p> <p>-1.4 (or close)</p>	<p>1</p> <p>1</p>
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 $x \approx -2.2$	<p>Identifying the points where $y = -3$</p> <p>Correct answer (both solutions)</p>	<p>1</p> <p>1</p>
11.4	Top to bottom in the table: C, D, A, B	<p>Only one correct</p> <p>Two correct</p> <p>All correct</p>	<p>1</p> <p>1</p> <p>1</p>

Question	Answer	Extra information	Marks
11.5	<p>A Cartesian coordinate system showing the graph of the cubic function $y = 2x^3 + 1$. The x-axis is labeled from -2 to 2, and the y-axis is labeled from -15 to 20. The curve is plotted in red and passes through the points $(-1, -1)$, $(0, 1)$, $(1, 3)$, and $(2, 9)$, which are marked with red 'x' symbols.</p>	<p>Points plotted correctly</p> <p>Smooth curve through the points</p>	<p>1</p> <p>1</p>

Question	Answer	Extra information	Marks																		
11.6		<p>Correct shape drawn. No need to label axes (0, 1) clearly labelled</p>	<p>1 1</p>																		
11.7 (a)	<table border="1" data-bbox="257 1157 869 1268"> <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	<p>At least three values correct All correct</p>	<p>1 1</p>
x	-4	-2	-1	-0.5	0.5	1	2	4													
y	-1	-2	-4	-8	8	4	2	1													

Question	Answer	Extra information	Marks
11.7 (b)		<p>All points correctly plotted Graph correct (should not touch either axis)</p>	<p>1 1</p>
11.8	Graph A		1
11.9	Linear: B Quadratic: A Cubic: D Reciprocal: C		2
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

Question	Answer	Extra information	Marks
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