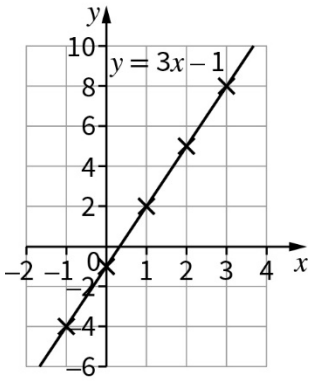
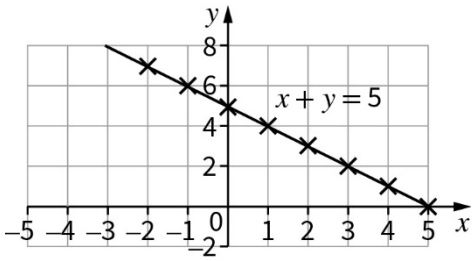
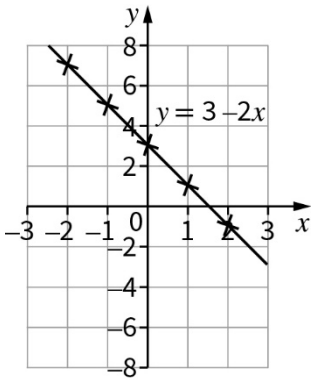
Oxford Revise | AQA GCSE Maths Foundation | Answers

Chapter 8 Straight line graphs

Question	Answer	Extra information	Marks
8.1 (a)	<table><tr><td>x</td><td>–1</td><td>0</td><td>1</td><td>2</td><td>3</td></tr><tr><td>y</td><td>**–4**</td><td>**–1**</td><td>2</td><td>**5**</td><td>8</td></tr></table>	1 mark for 2 correct values 2 marks for fully correct answer	1 1
8.1 (b)		At least 3 points plotted correctly Correct graph, with straight line drawn through the points	1 1

Question	Answer	Extra information	Marks
8.2		At least 3 points plotted correctly Correct graph, with straight line drawn through the points	1 1
8.3		At least 3 points plotted correctly Correct graph, with straight line drawn through the points	1 1
8.4 (a)	Gradient $= 6 \div 3 = 2$	Using $\frac{\text{change in } y}{\text{change in } x}$ with any correct values Correct answer	1 1
8.4 (b)	Gradient $= 2 \div 4 = \frac{2}{4}$ or $\frac{1}{2}$ or 0.5	Using $\frac{\text{change in } y}{\text{change in } x}$ with any correct values Correct answer	1 1

Question	Answer	Extra information	Marks
8.4 (c)	Gradient $= -5 \div 5 = -1$	Using $\frac{\text{change in } y}{\text{change in } x}$ with any correct values Correct answer	1 1
8.4 (d)	Gradient $= -6 \div 4 = -\frac{6}{4}$ or $\frac{3}{2}$ or -1.5	Using $\frac{\text{change in } y}{\text{change in } x}$ with any correct values Correct answer	1 1
8.5 (a)	Gradient $= 1 \div 1 = 1$	Using $\frac{\text{change in } y}{\text{change in } x}$ with any correct values Correct answer	1 1
8.5 (b)	$y = x$		1
8.6	$y = -3x$	One mark for the correct gradient. One mark for the correct y-intercept Correct answer	1 1 1
8.7 (a)	Gradient $= 5$; y-intercept $= 1$	Gradient correct y-intercept correct	1 1
8.7 (b)	Gradient $= -2$; y-intercept $= 3$	Gradient correct y-intercept correct	1 1
8.7 (c)	$y = 0.5x + 3$ Gradient $= 0.5$; y-intercept $= 3$	Correctly rearranging Gradient correct y-intercept correct	1 1 1

Question	Answer	Extra information	Marks
8.7 (d)	$y = x + 10$ Gradient = 1; y-intercept = 10	Correctly rearranging Gradient correct y-intercept correct	1 1 1
8.7 (e)	$y = -2x + 0.75$ Gradient = –2; y-intercept = 0.75	Correctly rearranging Gradient correct y-intercept correct	1 1 1
8.8	Any line parallel to $y = 4x - 8$ will have a gradient of 4, so any equation of the form $y = 4x + c$, with c a constant.		1
8.9 (a)	Gradient = $\frac{3-(-1)}{2-0} = 2$ Equation is $y = 2x + c$ Substitute in either point, here we use (2, 3): $3 = 4 + c$ $c = -1$ The equation is thus $y = 2x - 1$	Gradient found Using either point to find c. Correct answer	1 1 1

Question	Answer	Extra information	Marks
8.9 (b)	Gradient = $\frac{1-5}{1-(-3)}=-1$ Equation is $y=-x+c$ Substitute in either point, here we use $(1, 1)$: $1=-1+c$ $c=2$ The equation is thus $y=-x+2$	Gradient found Using either point to find c. Correct answer (accept $y=2-x$)	1 1 1
8.10	$y=4-3x$ has a gradient of -3 Rewrite $3x+y=0$ as $y=-3x$ This also has a gradient of -3, so Sajid is correct.	Rearranging Gradient $=-3$ Yes, with correct explanation	1 1 1
8.11 (a)	Gradient $=-1$ Line crosses the *y*-axis at $(0, 3)$, so the equation is $y=-x+3$	Identify gradient Identify y-intercept Correct equation	1 1 1
8.11 (b)	When $x=97$, $y=-97+3=-94$ Thus, the point with coordinates $(97, -100)$ will **not** be on the line.	Substituting $x=97$ or $y=100$ Correct conclusion with explanation	1 1

Questions referring to previous content				
8.12	5 feet = 60 inches 68 inches = 5 feet 8 inches	5 feet Correct answer	1 1	
8.13	Lin's class: $\frac{6}{25} = 24\%$ Jay's class: $\frac{8}{32} = 25\%$ Lin is incorrect. The percentage in Jay's class is slightly higher.	Finding either 24% or 25% Complete, correct explanation	1 1	