Oxford Revise | AQA GCSE Maths Foundation | Answers
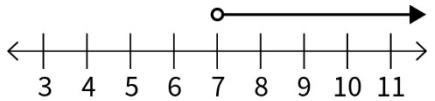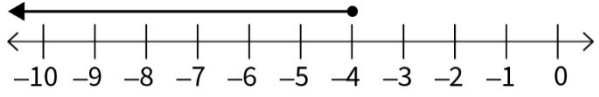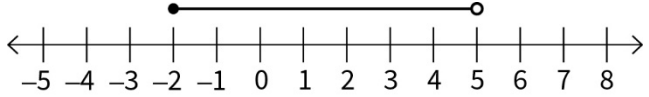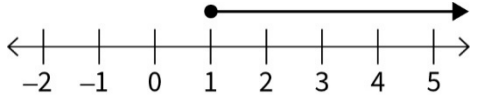
Chapter 7 Solving equations and inequalities

Question	Answer	Extra information	Marks
7.1 (a)	$5 \times 7 + 2 = 37$		1
7.1 (b)	$(23 - 2) \div 7 = 3$		1
7.2 (a)	$(5 - 5) \div 2 = 0$ $0 + 4 = 4$		1
7.2 (b)	$(-1 - 4) \times 2 = -10$ $-10 + 5 = -5$	Apply inverse operations in the correct order Correct answer	1 1
7.2 (c)	$\dfrac{h - 5}{2} + 4$	First two steps correct Correct answer	1 1
7.3 (a)	$p = q - 3r$		1
7.3 (b)	$p = \dfrac{r - 2}{3}$	Making $3p$ the subject Correct answer	1 1
7.3 (c)	$p = \pm\sqrt{q}$	$\pm$ sign not needed for the mark	1

Question	Answer	Extra information	Marks
7.3 (d)	$p = 6r - q$	Making $6r$ the subject Correct answer	1 1
7.4 (a)	$t = \dfrac{28}{4} = 7$		1
7.4 (b)	$w = 15 - 6 = 9$		1
7.4 (c)	$15 = 8 + p$ $p = 7$		1
7.4 (d)	$b = 5 \times 10 = 50$		1
7.5 (a)	$\dfrac{a}{4} - 1 = 10$ $\dfrac{a}{4} = 11$ $a = 44$	$\dfrac{a}{4} = 11$ Correct answer	1 1

Question	Answer	Extra information	Marks
7.5 (b)	$\dfrac{2k+1}{3} = -4$ $2k+1 = -12$ $2k = -13$ $k = -\dfrac{13}{2}$	$2k+1 = -12$ Correct answer	1 1
7.5 (c)	$5p+3 = 3p+7$ $2p = 4$ $p = 2$	$2p = 4$ Correct answer	1 1
7.5 (d)	$3+p = 4p-6$ $9 = 3p$ $p = 3$	$9 = 3p$ Correct answer	1 1
7.5 (e)	$9-6p = 4-11p$ $5p = -5$ $p = -1$	$5p = -5$ Correct answer	1 1

Question	Answer	Extra information	Marks
7.6	Sarah = n Ewan = $n-5$ Cameron = $2n$ $n+n-5+2n=35$ $4n=40$ $n=10$ Sarah scores 10 goals.	$n-5$ and $2n$ Adding and setting equal to 35 Correct answer	1 1 1
7.7 (a)	$2x-1=x+3$ $x=4$	Correct equation Correct rearrangement Correct answer	1 1 1
7.7 (b)	From part (a), the left and right sides are 7 cm. Perimeter is $2y+14=34$ $2y=20$ $y=10$ Side lengths are thus 7 cm and 10 cm, so the area is 70 cm²	Use $x=4$ to get one side length of 7 cm Set up an equation to find y. $y=10$ Correct answer	1 1 1 1

Question	Answer	Extra information	Marks
7.8 (a)			1
7.8 (b)			1
7.8 (c)		Any circles at -2 and 5 joined together	1
		Correct answer	1
7.8 (d)			1
7.9	$-1, 0, 1, 2, 3, 4$	List starts with -1 or ends with 4	1
		Correct answer	1
7.10	$-2, -1, 0, 1, 2, ,3, 4$	Divide all three parts of the inequality by 2	1
		Correct answer	1
7.11 (a)	$x \geq 2.5$	2.5	1
		Correct answer	1
7.11 (b)	$2x < 6$ $x < 3$	$2x < 6$	1
		Divide both parts by 2	1
		Correct answer	1

Question	Answer	Extra information	Marks
7.11 (c)	$3x > -3$ $x > -1$	$3x > -3$ Divide both parts by 3 Correct answer	1 1 1
7.11 (d)	$2x + 6 > 15$ $2x > 9$ $x > \dfrac{9}{2}$	Correct subtraction of term from one side $2x > 9$ Correct answer	1 1 1
7.12	$\dfrac{2}{3} \times 180 = 120$ Tom uses 120 g	$\dfrac{2}{3} \times 180$ Correct answer	1 1
7.13 (b)	Formula		1
7.13 (c)	Equation		1
7.13 (d)	Identity		1
7.13 (e)	Expression		1
7.13 (f)	Formula		1
7.13 (g)	Expression		1
7.13 (h)	Identity		1