

Oxford Revise | Edexcel GCSE Maths Foundation | Answers

Chapter 17 Angle facts

Question	Answer	Extra information	Marks
17.1	The acute angle measures 75° , so the reflex angle is $360^\circ - 75^\circ = 285^\circ$		1
17.2	For example, 10° and 20° are both acute. $10^\circ + 20^\circ = 30^\circ$, which is still acute.	Any two angles that add to less than 90°	1
17.3	$x = 180 - 151 = 29^\circ$	$x + 151 = 180$ or $180 - 151$ Correct answer	1 1
17.4	From the number 1 to the number 5 is 4 hours, or one-third of the way around. $360 \div 3 = 120$ The hand turns 120°	$360 \div 3$ or equivalent Correct answer	1 1
17.5 (a)	$a = 120^\circ$ Alternate angles are equal	Correct angle Correct answer	1 1
17.5 (b)	$b = 115^\circ$ Corresponding angles are equal	Correct angle Correct answer	1 1
17.6	$3y + 10 = y + 30$ $2y = 20$ $y = 10^\circ$	$3y + 10 = y + 30$ Correct algebraic step, eg $2y + 10 = 20$ Correct answer	1 1 1
17.7 (a)	(3, 2)		1

Question	Answer	Extra information	Marks
17.7 (b)	Point D plotted at $(3, 4)$ to form a square		1
17.7 (c)	$(3, 4)$		1
17.8	Trapezium		1
17.9	Isosceles triangle		1
	$180 - 42 = 138$	$(180 - 42) \div 2$	
	$138 \div 2 = 69$ $y = 69^\circ$	Correct answer	1
17.10	Angles on a straight line add to 180.	Correct reason stated	1
	Therefore, angle $ABC = 180 - 95 = 85^\circ$	Correct angle of 85°	1
	Opposite angles in a rhombus are equal. Therefore, $x = 85^\circ$	Fully correct	1
17.11	Angles in a quadrilateral add to 360°	Correct equation	1
	$x + 2x + 3x + 20 = 360$		
	$6x + 20 = 360$ $6x = 340$ $x = 56.7^\circ$	Any correct algebraic step	1
	The smallest angle is 20°	Correct answer	1
17.12	Angle $EAD = 44$ (alternate angles with AFB)	$EAD = 44$	1
	Angle $FDE = 180 - 44 - 90 = 46^\circ$	$180 - 90 - \text{angle } EAD$	1
	(Angles in a triangle add to 180°)	Correct answer	1

Question	Answer	Extra information	Marks
17.13 (a)	$4.5 \times 19.2 = 4.5 \times 192 \div 10$ $= 864 \div 10$ $= 86.4$		1
17.13 (b)	$450 \times 0.0192 = 4.5 \times 100 \times 192 \div 10\,000$ $= 4.5 \times 192 \times 100 \div 10\,000$ $= 864 \div 100$ $= 8.64$		1
17.13 (c)	$\frac{864}{4.5} = 192$ $\frac{864 \div 100}{4.5 \div 10} = 192 \div 10 = 19.2$		1
17.14	Seb is wrong. 5x and 2 are not like terms so you can't subtract one from the other.	Correct explanation	1