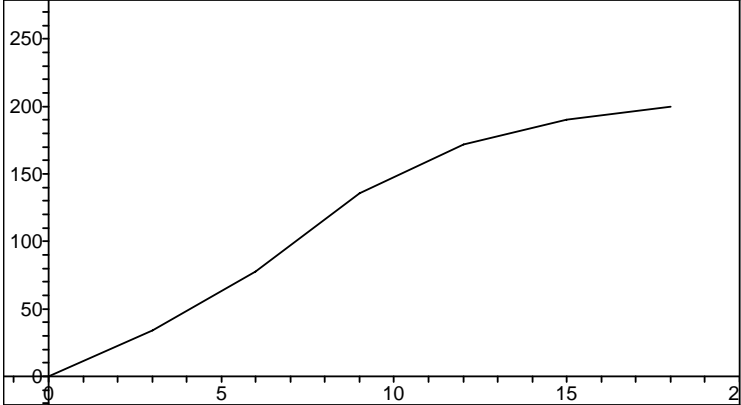


GCSE 2 Exemplar Paper 2: Answers

Question	Answer	Marks
Section A		
A1 a	20	2
b	200	1
A2 a	6-9 hours	2
b		5
c	7 hours	2
d	75%	3
A3 a	$3^2 \times 2^3$	3
b	(i) 360 (ii) 8	1, 1
A4 a	$x = 11$	3
b	$x > -1$	2
	RHS of -1	2
	Hollow circle	
A5 a	1,4	1
b	-2,6	2
A6 a	159	1
b	$168 - 145 = 23$	3
c	Box and whisker diagram drawn	3
d	Boys are shorter on average than girls; boy's heights are more spread out	2

A7	$p = 3, q = -1$	4
A8	$x^2 - x - 12$	3
A9	(a) $p = 0.1 \quad q = 0.6$ (b) $20p = 2$ (c) 0.2 (d) 0.58	1, 1 2 2 4
A10	86.14cm ²	4
Section B		
B1	32	2
B2	$V=A=288$	4
B3	$60+135+165=360$	3
B4	$10a^2 = 2a^2 + 40a$ $8a^2 - 40a = 0 \Rightarrow 8a(a - 5) = 0$ $a = 5$	4
B5	a $\frac{1}{42}$ b 42 c 882	2 1 2
B6	a Intermediate working seen; e.g. $360^\circ - \frac{360^\circ}{a} - \frac{360^\circ}{b} - \frac{360^\circ}{c} - \frac{360^\circ}{d} = 0^\circ$ b $90+90+60+120=360$ c In (a) we have four regular polygons meeting at a point	3 2 2
B7	$\frac{1}{7} + \frac{1}{7} + \frac{1}{x} = \frac{1}{2}$ does not have an integer solution. $x = \frac{14}{5}$	4
B8	a Both correct points	2

b	$x^3 = 6x^2$ $x^3 - 6x^2 = 0$ $x^2(x - 6) = 0$ $x = 6$	4
B9	<p>Exteriors sum to 360 and all equal so each one is $\frac{360^\circ}{n}$</p> <p>Interior = 180 - exterior</p>	2
B10 a	3	1
b	$\frac{22}{9}$	2