

GCSE 2 Exemplar Paper 3: Answers

Question	Answer	Marks
Section A		
1.	6	2
2.	$\frac{7}{30}$	3
3.	11	3
4. (a)	$x + 2$	3
(b)	$x - 2$	1
(c)	8	3
5.	$\frac{x + 3}{2x - 1}$	4
6.	8	5
7. a	-1, $\frac{1}{2}$, 2, -1, $\frac{1}{2}$, 2	3
b	$\frac{1}{2}$, 2, -1	1,1,1
c	2	2
8.	(-0.28, 2.43); (-2.12, -1.23)	6
9.	43.5%	4
10. (a)	12.71 kmh ⁻¹	4
(b)	12.67 kmh ⁻¹	4
11.	$p + q + r + s = p + p + 1 + p + 2 + p + 3 = 4p + 6$ $rs - pq = (p + 2)(p + 3) - p(p + 1) = p^2 + 5p + 6 - (p^2 + p$	5
12. (a)	Similar triangles $\frac{r}{10} = \frac{h}{20}$	2
(b)	5.56	3

Section B			
13.	(a)	96	2
	(b)	$234/382=0.613$ (3dp)	5
	(c)	For the 3-6 months group, we don't know whether the people are evenly spread across the group	2
	(d)	3.96 months	6
14.	(a)	Sketch: quarter circle centre A, radius AB Straight line to represent vector $\begin{pmatrix} 3 \\ 4 \end{pmatrix}$ Arc of circle, centre origin, radius right size to join end of line, angle at centre = 60°	8
	(b)	$11.33 + 5 + 2.34 = 18.67$	6
15.	a	$a = 30^\circ \quad b = 40^\circ \quad c = 80^\circ$	3
	b	2km	1
	c	3.76 km (3sf)	4
	d	2.20 (nearest minute)	7
16.	a	$2/3$	6
	b	$19/40$	10