

r/IGCSE Resources

Topical Worksheets for Cambridge IGCSE™ Mathematics (0580/0980)

Practice paper (40 marks)

Mark Scheme

Question	Answer	Marks	AO Element	Notes	Guidance
1(a)	y = 2x - 3 oe	3		B2 for $2x - 3$ or $y = their \ m \ x - 3$ or $y = 2x + c$ or M1 for $\frac{9 - (-3)}{6 - 0}$ oe or $9 = 6m - 3$ oe or B1 for $2x$ seen or $[y =]mx - 3 \ m \neq 0$	
1(b)	$y = -\frac{1}{2}x + 2 \text{ oe}$	2		FT their (a) $y = -\frac{1}{their m}x + 2$ B1 for gradient $-\frac{1}{2}$, gradient FT their (a) or for $y = mx + 2$ $m \neq 0$	
2	13.9 or 13.92 to 13.93	3		M2 for $\sqrt{(7-2)^2 + (121)^2}$ oe or M1 for $(7-2)^2 + (121)^2$ oe	

Question	Answer	Marks	AO Element	Notes	Guidance
3(a)	[y=] 4x + 5	3		B2 for answer $[y =]4x + c$ oe $(c$ can be numeric or algebraic)	
				OR	
				M2 for $\frac{y-9}{x-1} = \frac{9-(-3)}{1-(-2)}$ oe	
				OR	
				M1 for $\frac{93}{12}$ oe	
				M1 for correct substitution of $(-2, -3)$ or $(1, 9)$ into y = (their m)x + c oe	
3(b)	76[.0] or 75.96	2		M1 for tan[] = 4 oe	

Question	Answer	Marks	AO Element	Notes	Guidance
3(c)(i)	$[y =] - \frac{1}{4}x + \frac{23}{8}$ oe	3		B2FT for $[y =]$ $-\frac{1}{their m \text{ from } (\mathbf{a})} x+c$ oe (c can be numeric or algebraic) OR M2 for $\frac{y-2}{x-3.5}$ $= -\frac{1}{their m \text{ from } (\mathbf{a})}$ oe OR M1 for $-\frac{1}{their m \text{ from } (\mathbf{a})}$ soi M1 for correct substitution of $(3.5, 2)$ into $y = (their m)x + c \text{ oe}$	
3(c)(ii)	(-4.5, 4)	2		B1 for each value or for $\begin{pmatrix} -8\\2 \end{pmatrix}$ seen	

Question	Answer	Marks	AO Element	Notes	Guidance
4	49 000	3		M1 for $4.9 \times (10000000)^2$	
				M1 for $\div (100000)^2$	
				OR	
				M1 for 1 cm : 100 km	
				M1 for $4.9 \times (their\ 100)^2$	
				OR	
				M2 for	
				$\left(\frac{\sqrt{4.9} \times 10\ 000\ 000}{100\ 000}\right)^2$	
				or M1 for	
				$\frac{\sqrt{4.9 \times 10\ 000\ 000}}{100\ 000}$	

Question	Answer	Marks	AO Element	Notes	Guidance
5	1500	3		M2 for $12 \div \left(\frac{20}{100}\right)^3$ oe	
				or M1 for $\left(\frac{20}{100}\right)^3$ or $\left(\frac{100}{20}\right)^3$ oe	
				OR	
				$M1$ for $\div 20^3$ oe	
				M1 for $\times 100^3$ oe	
6	12.5 or 12.50	3		M2 for $17 \times \sqrt{\frac{159.5}{295}}$	
				oe	
				or M1 for $\sqrt{\frac{159.5}{295}}$ or	
				$\sqrt{\frac{295}{159.5}} \text{ seen}$	
				or for $\frac{159.5}{295} = \frac{x^2}{17^2}$	
				oe	

Question	Answer	Marks	AO Element	Notes	Guidance
7	380	5		B2 for time = 8, implied by 23 on <i>t</i> -axis	
				or M1 for $\frac{20}{t} = 2.5$	
				or $\frac{20}{t-15} = 2.5$ or $\frac{0-20}{t-15} = -2.5$ oe	
				M2 for $\frac{1}{2} (their 23 + 15) \times 20$ or	
				$20 \times 15 + \frac{1}{2} \times their \ 8 \times 20$	
				oe or M1 for any relevant area found	
8	$\frac{P}{2+\pi}$	2		M1 for $P = r(2 + \pi)$	
9(a)	19	2		M1 for $3(2^x) - 5$ soi or for $f(8)$	
9(b)	$\frac{x+5}{3}$ oe final answer	2		M1 for correct first step y + 5 = 3x or $\frac{y}{3} = x - \frac{5}{3}$ or $x = 3y - 5$	
10	5 - 2x final answer	2		M1 for $2(1-x) + 3$ oe	

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					[Total: 40]



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Acknowledgements and Information:

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