

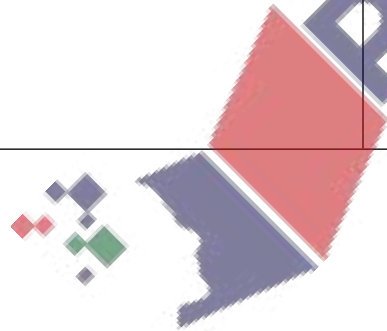
Topical Worksheets for Cambridge IGCSE™  
Mathematics (0580)

Practice paper (40 marks)

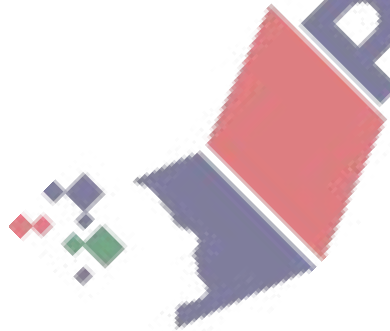
[Mark Scheme](#)

1<sup>st</sup> edition, for examination until 2025

Question	Answer	Marks	AO Element	Notes	Guidance
1(a)	$y = 2x - 3$ oe	3		<p><b>B2</b> for <math>2x - 3</math>                      or <math>y = \textit{their } m x - 3</math>                      or <math>y = 2x + c</math></p> <p>or <b>M1</b> for <math>\frac{9 - (-3)}{6 - 0}</math> oe                      or <math>9 = 6m - 3</math> oe                      or <b>B1</b> for <math>2x</math> seen                      or <math>[y =]mx - 3 \quad m \neq 0</math></p>	
1(b)	$y = -\frac{1}{2}x + 2$ oe	2		<p><b>FT</b> <i>their (a)</i>  <math>y = -\frac{1}{\textit{their } m}x + 2</math></p> <p><b>B1</b> for gradient <math>-\frac{1}{2}</math>,                      gradient <b>FT</b> <i>their (a)</i>                      or for <math>y = mx + 2 \quad m \neq 0</math></p>	
2	13.9 or 13.92 to 13.93	3		<p><b>M2</b> for  <math>\sqrt{(7 - 2)^2 + (12 - -1)^2}</math>                      oe</p> <p>or <b>M1</b> for  <math>(7 - 2)^2 + (12 - -1)^2</math>                      oe</p>	



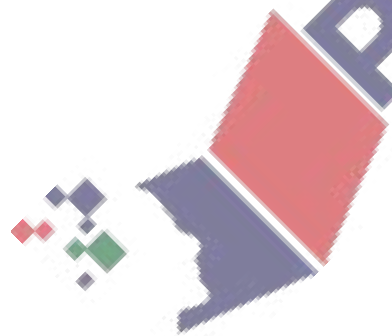
Question	Answer	Marks	AO Element	Notes	Guidance
3(a)	$[y = ] 4x + 5$	<b>3</b>		<p><b>B2</b> for answer  <math>[y = ] 4x + c</math> oe (<math>c</math> can be numeric or algebraic)</p> <p>OR</p> <p><b>M2</b> for  <math>\frac{y - 9}{x - 1} = \frac{9 - (-3)}{1 - (-2)}</math> oe</p> <p>OR</p> <p><b>M1</b>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



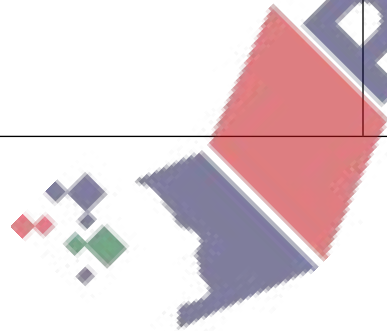
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Question	Answer	Marks	AO Element	Notes	Guidance
3(c)(i)	$[y = ] -\frac{1}{4}x + \frac{23}{8}$ oe	3		<p><b>B2FT</b> for <math>[y = ]</math>  <math>-\frac{1}{\text{their } m \text{ from (a)}}x + c</math>                      oe                      (c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

Question	Answer	Marks	AO Element	Notes	Guidance
4	49 000	3		<p><b>M1</b> for <math>4.9 \times (10\,000\,000)^2</math></p> <p><b>M1</b> for <math>\div (100\,000)^2</math></p> <p>OR</p> <p><b>M1</b> for 1 cm : 100 km</p> <p><b>M1</b> for <math>4.9 \times (\textit{their } 100)^2</math></p> <p>OR</p> <p><b>M2</b> for <math>\left(\frac{\sqrt{4.9} \times 10\,000\,000}{100\,000}\right)^2</math></p> <p>or <b>M1</b> for <math>\frac{\sqrt{4.9} \times 10\,000\,000}{100\,000}</math></p>	



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



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

Question	Answer	Marks	AO Element	Notes	Guidance
					[Total: 40]

