

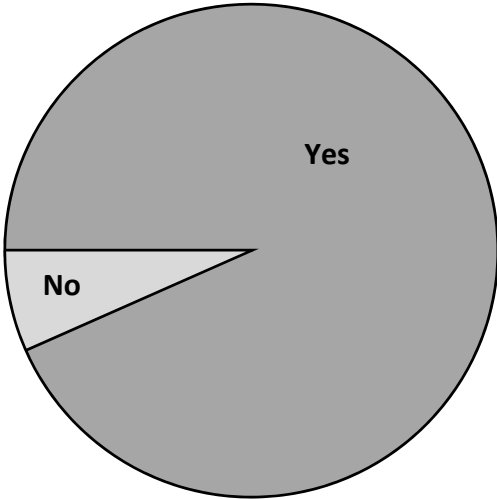
## Model Solutions and Marking Notes

Note: The model solutions for each question are not intended to be exhaustive – there may be other correct solutions. Any Examiner unsure of the validity of the approach adopted by a particular candidate to a particular question should contact his / her Advising Examiner.

Q1	Model Solution – 25 Marks	Marking Notes										
(a)&(b)	<div>(a) 18</div> <div>(b)</div> <table><tr><td>Size</td><td>S</td><td>M</td><td>L</td><td>XL</td></tr><tr><td>Freq</td><td>3</td><td>7</td><td>6</td><td>2</td></tr></table>	Size	S	M	L	XL	Freq	3	7	6	2	<div>Scale 15D (0, 4, 8, 12, 15)</div> <div>Accept correct answers without work</div> <div>Low Partial Credit</div> <div>• 1 or 2 correct frequencies in (b)</div> <div>Mid Partial Credit</div> <div>• (a) correct <b>or</b> 3 correct frequencies in (b)</div> <div>High Partial Credit</div> <div>• (b) correct</div> <div>• (a) correct <b>and</b> 2 correct frequencies in (b)</div>
Size	S	M	L	XL								
Freq	3	7	6	2								
(c)&(d)	<div>(c) <math>\frac{6}{18}</math> <b>or</b> <math>\frac{1}{3}</math> <b>or</b> 0.333...</div> <div>(d) <math>\frac{3}{17}</math> <b>or</b> 0.176...</div>	<div>Scale 10C (0, 4, 7, 10)</div> <div>Accept correct answers without work</div> <div>Low Partial Credit</div> <div>• Numerator or denominator correct in one part of unsimplified fraction</div> <div>High Partial Credit</div> <div>• One part correct</div>										

Q2	Model Solution – 20 Marks	Marking Notes
(a)&(b)	<p>(a) No number happens more than once <i>or any other valid reason</i></p> <p>(b) 3, 7, 19, 23, 31 <i>or any sample from the table where 19 is the median</i></p>	<p><b>Scale 10D (0, 4, 6, 8, 10)</b></p> <p>In (b), the order of entries in the boxes does not matter</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>Work of merit in 1 part, e.g. In (a): shows understanding of mode; In (b): shows understanding of median, or list including 19 given</li> </ul> <p><i>Mid Partial Credit</i></p> <ul style="list-style-type: none"> <li>1 part fully correct</li> <li>Work of merit in both parts</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>(a) correct <b>and</b> list from the table including 19 given in (b)</li> <li>(b) correct <b>and</b> work of merit in (a)</li> </ul>

Q2	Model Solution – 20 Marks	Marking Notes
(c)&(d)	<p>(c)</p> <p>Sample: 2, 13, 17, 23, 37 or any sample from the table including 2 and 37</p> <p>Range: <math>37 - 2 = 35</math></p> <p>(d)</p> <p>Sample: 2, 3, 5, 7, 11</p> <p>Mean: <math>\frac{2+3+5+7+11}{5}</math></p> <p><math>= \frac{28}{5}</math> or <math>5\frac{3}{5}</math> or 5.6</p>	<p><b>Scale 10D (0, 4, 6, 8, 10)</b></p> <p>Accept correct answers without work</p> <p>The order of entries in the boxes does not matter</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>1 part half correct, i.e. sample <b>or</b> value correct</li> </ul> <p><i>Mid Partial Credit</i></p> <ul style="list-style-type: none"> <li>1 part fully correct</li> <li>Both parts half correct</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>1 part fully correct <b>and</b> other part half correct</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>Range as interval instead of value, otherwise fully correct</li> </ul>

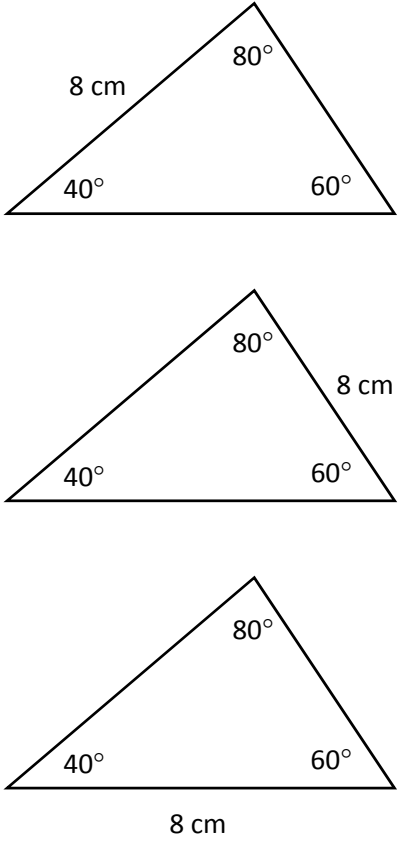
Q3	Model Solution – 35 Marks	Marking Notes
(a)&(b)	<p>(a) Angle No: <math>\frac{20}{300} \times 360 = 24^\circ</math></p> <p><math>\Rightarrow</math> Angle Yes: <math>360 - 24 = 336^\circ</math></p>  <p>(b) Data: Categorical Reason: They are not numbers or any other valid reason</p>	<p><b>Scale 20D (0, 9, 12, 16, 20)</b></p> <p>An angle tolerance of <math>3^\circ</math> applies</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>Work of merit in (a) <b>or</b> (b), e.g. in (a) mentions <math>360^\circ</math>, relevant fraction in (b) data type or reason correct</li> </ul> <p><i>Mid Partial Credit</i></p> <ul style="list-style-type: none"> <li>Angle correctly calculated or drawn in (a)</li> <li>(b) correct</li> <li>Work of merit in (a) <b>and</b> (b)</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>(a) correct (including calculation for one angle shown)</li> <li>(b) correct <b>and</b> angle correctly calculated or drawn in (a)</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>All correct, except no labels on diagram or incorrect labelling</li> </ul>

Q3	Model Solution – 35 Marks	Marking Notes
(c)	<p>(i) No angle: <math>50^\circ</math> Yes angle: <math>310^\circ</math></p> <p>(ii) # No: <math>\frac{50}{360} \times 72 = 10</math> # Yes: <math>72 - 10 = 62</math></p>	<p><b>Scale 10C (0, 4, 7, 10)</b> Accept correct answers without work An angle tolerance of <math>3^\circ</math> applies</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• 1 angle correct in (i)</li> <li>• Work of merit in (ii)</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• One part correct</li> <li>• Work of merit in (i) <b>and</b> (ii)</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>• Yes and No values swapped, but otherwise correct</li> </ul>
(d)	<p>More reliable: Company A Reason: They asked more people <i>or any other valid reason</i></p>	<p><b>Scale 5B (0, 2, 5)</b> <i>Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Picks correct company</li> <li>• Work of merit in reason</li> </ul>

Q4	Model Solution – 20 Marks	Marking Notes
(a)	$9 \times 14 = 126 \text{ cm}^2$	<p><b>Scale 10C (0, 4, 7, 10)</b> Accept correct answer without work</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Correct area formula</li> <li>• Some work with screen or eReader measurements, e.g. finds perimeter</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Finds area of front of eReader</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>• Correct answer with no / incorrect unit</li> </ul>
(b)	<p>Answer: No</p> <p>Justification:</p> $\frac{126}{16 \times 11} = \frac{126}{176} = 0.7159... = 71.59... \% < 80\%$ <p style="text-align: center;"><b>OR</b></p> <p>80% of <math>(11 \times 16) = 140.8 &gt; 126</math> (ans (a))</p> <p style="text-align: center;"><b>OR</b></p> $\frac{100}{80} \times 126 = 157.5 < 11 \times 16 = 176$	<p><b>Scale 10C (0, 4, 7, 10)</b> Accept 0.7159 or 140.8 or similar as correct justification</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Answer correct</li> <li>• Work of merit in justification</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Answer correct <b>and</b> work of merit in justification</li> <li>• Justification fully correct but incorrect / no answer</li> </ul>

Q5	Model Solution – 25 Marks	Marking Notes
(a)&(b)	<p>(a) <i>Line 2:</i> 0.55 <i>Line 3:</i> 40</p> <p>(b) <i>In m<sup>3</sup>:</i>  <math>1.5 \times 0.55 \times 0.4 = 0.33 \text{ m}^3</math></p> <p><i>In cm<sup>3</sup>:</i>  <math>150 \times 55 \times 40 = 330\,000 \text{ cm}^3</math></p>	<p><b>Scale 20D (0, 9, 12, 16, 20)</b></p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Work of merit in (a) <b>or</b> (b), e.g. in (a), work of merit in conversion; in (b), volume formula correct</li> </ul> <p><i>Mid Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Work of merit in (a) <b>and</b> (b)</li> <li>• (a) <b>or</b> (b) correct</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• 1 part correct <b>and</b> work of merit in other part</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>• All correct, except for no / incorrect unit in (b)</li> <li>• Table correct, and <math>1.5 \times 0.55 \times 0.4</math> or <math>150 \times 55 \times 40</math> evaluated incorrectly or not evaluated</li> </ul>
(c)	<p>The bath is not exactly a rectangular box</p> <p style="text-align: center;"><b>OR</b></p> <p>The measurements might not be totally accurate</p> <p><i>or any other valid reason</i></p>	<p><b>Scale 5A (0, 5)</b></p>

Q6	Model Solution – 40 Marks	Marking Notes
(a)	$180 - (40 + 60)$ $= 180 - 100$ $= 80^\circ$	<p><b>Scale 10C (0, 4, 7, 10)</b></p> <p>Accept correct answer without work</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Any relevant step , e.g. mention of <math>180^\circ</math></li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Relevant use of <math>180^\circ</math></li> <li>• Indicates 3 angles sum to <math>180^\circ</math></li> </ul>

Q6	Model Solution – 40 Marks	Marking Notes
(b)		<p><b>Scale 10C (0, 4, 7, 10)</b></p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Sketch of a triangle</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Sketch of a triangle with two correct values (angle or side)</li> </ul>
(c)	Appropriate triangle constructed accurately.	<p><b>Scale 20C (0, 10, 15, 20)</b></p> <p>Tolerance: 2 angles correct within <math>3^\circ</math>, and 1 side within 2 mm of 8 cm.</p> <p>Accept correct answer without construction lines.</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Any triangle constructed</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Triangle constructed with 2 correct angles</li> <li>• Triangle constructed with 1 correct angle and correct side</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>• Constructs correct triangle that is different to that sketched in (b)</li> </ul>

Q7	Model Solution – 35 Marks	Marking Notes
(a)	$r = 6 \div 2 = 3 \text{ m}$	<p><b>Scale 5B (0, 2, 5)</b></p> <p>Accept correct answer without work.</p> <p><i>Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Work of merit</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>• Answer correct, but no / incorrect unit</li> </ul>
(b)	$2 \pi r$ $= 2 \pi (3)$ $= 6 \pi$ $= 18.8\dots$ $= 19 \text{ m [nearest m]}$	<p><b>Scale 10C (0, 4, 7, 10)</b></p> <p>Accept correct answer without unit</p> <p>The same work in (a) and (b) can only be given credit in one part</p> <p>If a candidate correctly finds the area in (b) and the perimeter in (c), award <i>High Partial Credit</i> in (b) and <i>Full Credit</i> in (c)</p> <p>Consider solution as requiring 3 steps:</p> <p>Step 1: Correct formula</p> <p>Step 2: Substitution of <math>r</math> into formula</p> <p>Step 3: Evaluates answer</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• 1 step correct</li> <li>• Product of two relevant numbers</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• 2 correct steps</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>• Perimeter found but given in terms of <math>\pi</math>, or in decimal form but not correct to nearest metre</li> </ul>

Q7	Model Solution – 35 Marks	Marking Notes
(c)	$\pi r^2$ $= \pi (3^2)$ $= 9\pi$ $= 28.27\dots$ $= 28.3 \text{ m}^2 \text{ [1 DP]}$	<p><b>Scale 10C (0, 4, 7, 10)</b></p> <p>Accept correct answer without unit</p> <p>The same work in (a) and (b) can only be given credit in one part</p> <p>If a candidate correctly finds the area in (b) and the perimeter in (c), award <i>High Partial Credit</i> in (b) and <i>Full Credit</i> in (c)</p> <p>Consider solution as requiring 3 steps:</p> <p>Step 1: Correct formula</p> <p>Step 2: Substitution of <math>r</math> into formula</p> <p>Step 3: Evaluates answer</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• 1 step correct</li> <li>• Relevant number squared</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• 2 steps correct</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>• Area found but given in terms of <math>\pi</math>, or in decimal form but not correct to one decimal place.</li> </ul>
(d)	<p><i>Time</i> : 15 mins</p> <p><i>Speed</i> :</p> <p>1 min = <math>\frac{25}{15}</math> km</p> <p>60 min = <math>60 \times \frac{25}{15} = 100 \text{ km/hr}</math></p> <p style="text-align: center;"><b>OR</b></p> <p><i>Time</i> : 15 mins = 0.25 hours</p> <p><i>Speed</i> : <math>\frac{\text{Distance}}{\text{Time}} = \frac{25}{0.25} = 100 \text{ km/hr}</math></p> <p style="text-align: center;"><b>OR</b></p> <p><i>Time</i> : 15 mins</p> <p><i>Speed</i> : <math>25 \times 4 = 100 \text{ km/hr}</math></p>	<p><b>Scale 10C (0, 4, 7, 10)</b></p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Some attempt at calculating time</li> <li>• Correct speed formula</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Time correct <b>and</b> formula correct using any relevant units, e.g. <math>\frac{25}{15}</math></li> </ul>

Q8	Model Solution –15 Marks	Marking Notes
(a)	$\begin{array}{l} 0: \quad t \\ 1: \quad p \\ -1: \quad k \end{array}$	<p><b>Scale 10C (0, 4, 7, 10)</b></p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• 1 correct</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• 2 correct</li> </ul>
(b)	$y = 3x + 5$ <p style="text-align: center;"><b>OR</b></p> $y - 5 = 3(x - 0)$ $\Rightarrow y - 5 = 3x$ $\Rightarrow y = 3x + 5$	<p><b>Scale 5C (0, 2, 3, 5)</b></p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• <math>m</math> or <math>c</math> correctly identified</li> <li>• Correct equation of line formula (other than the one given)</li> <li>• Substitutes <math>x = 0</math> <b>or</b> <math>y = 5</math></li> <li>• Substitutes <math>x = 5</math> <b>and</b> <math>y = 0</math></li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Correct equation not in correct format, e.g. <math>y - 5 = 3(x - 0)</math></li> </ul>

Q9	Model Solution – 30 Marks	Marking Notes
(a)&(b)	<p>(a) <math>A(5, 1)</math> <math>B(3, 4)</math></p> <p>(b) <math>\left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)</math>  <math>= \left(\frac{5+3}{2}, \frac{1+4}{2}\right)</math>  <math>= (4, 2.5)</math></p>	<p><b>Scale 10D (0, 4, 6, 8, 10)</b></p> <p>Accept correct answer without work</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• 1 ordinate correct</li> <li>• Mid-point formula correct or mid-point marked on diagram but not written down</li> <li>• 1 point correct with co-ordinates reversed</li> </ul> <p><i>Mid Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Part (a) correct <b>or</b> part (b) correct</li> <li>• Work of merit in both parts</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• One part correct <b>and</b> work of merit in other part</li> <li>• All 3 points correct, with co-ordinates reversed</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>• Leaves x-ordinate as <math>\frac{8}{2}</math> in (b), otherwise fully correct</li> <li>• One ordinate in (a) incorrect, otherwise fully correct</li> </ul>



Q9	Model Solution – 30 Marks	Marking Notes
(c)&(d)	<p>(c) <math>\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}</math>  <math>= \sqrt{(3 - 5)^2 + (4 - 1)^2}</math>  <math>= \sqrt{(-2)^2 + (3)^2}</math>  <math>= \sqrt{13}</math> [units]</p> <p>(d) <math>\frac{1}{2} \times \text{base} \times \text{height}</math>  <math>= \frac{1}{2} \times 4 \times 3</math>  <math>= 6</math> [square units]</p>	<p><b>Scale 15D (0, 4, 8, 12, 15)</b>  Accept correct answers without units  In (d), accept correct answer without work  In (c), correct answer without work is considered substantial work (<b>not</b> correct)</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Work of merit in one part, eg. Correct formula, or length of base or height identified</li> </ul> <p><i>Mid Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Work of merit in <b>both</b> parts</li> <li>• Substantial work in 1 part, e.g.  in (c): correctly fills in formula, or fills formula incorrectly but finishes correctly, or correct answer without work;  in (d): correctly fills in formula, or finds correct area of rectangle (<math>4 \times 3</math>)</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• 1 part correct</li> <li>• Substantial work in 1 part <b>and</b> work of merit in the other part</li> </ul>
(e)	Triangle drawn with vertices (5, 5), (7,2), and (9, 5)	<p><b>Scale 5C (0, 2, 3, 5)</b>  Accept correct answer without construction lines</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>• Shows understanding of central symmetry, e.g. draws line from 1 vertex through <i>D</i></li> <li>• Draws a different transformation correctly, e.g. translation</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>• 1 image point correctly plotted</li> <li>• 2 or 3 image points worked out correctly</li> </ul> <p><i>Full Credit – 1</i></p> <ul style="list-style-type: none"> <li>• Three points correctly transformed but not joined</li> <li>• Central symmetry correct in point other than <i>D</i></li> </ul>

Q10	Model Solution – 30 Marks	Marking Notes
(a)	$ \angle K  = 110^\circ$ $ \angle L  = 30^\circ$	<p><b>Scale 10C (0, 4, 7, 10)</b></p> <p>Accept correct answers without work.  Answers may be in diagram.</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>Some relevant calculation with given angles, e.g. <math>30^\circ + 40^\circ</math></li> <li>Reference to vertically opposite or alternate angles</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li><math> \angle K </math> <b>or</b> <math> \angle L </math> correct</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li><math> \angle K  = 30^\circ</math> and <math> \angle L  = 110^\circ</math></li> </ul>
(b)(i)	1. Always true 2. Never true 3. Always true 4. Sometimes true	<p><b>Scale 15D (0, 4, 8, 12, 15)</b></p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>1 part correct</li> </ul> <p><i>Mid Partial Credit</i></p> <ul style="list-style-type: none"> <li>2 parts correct</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>3 parts correct</li> </ul>
(b)(ii)	The sum of the angles in a rectangle is $360^\circ$ <p style="text-align: center;"><b>OR</b></p> The sum of the angles in a triangle is $180^\circ$ , and a rectangle is made up of 2 triangles  <i>or any other valid justification</i>	<p><b>Scale 5B (0, 2, 5)</b></p> <p><i>Partial Credit</i></p> <ul style="list-style-type: none"> <li>Some work of merit in justification</li> </ul>

Q11	Model Solution – 25 Marks	Marking Notes
(a)(i)&(ii)	<p>(i) 260</p> <p>(ii) <math>\frac{20}{260}</math> or <math>\frac{1}{13}</math></p>	<p><b>Scale 10C (0, 4, 7, 10)</b></p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>Part (i) correct</li> <li>Work of merit in (ii) e.g. Numerator or denominator correct in unsimplified fraction, or fraction inverted</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>(ii) correct</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>0.0769</li> </ul>
(a)(iii)&(iv)	<p>(iii) <math>A = \tan^{-1}\left(\frac{1}{13}\right)</math>  <math>= 4.39\dots</math>  <math>= 4^\circ</math> [nearest degree]</p> <p>(iv) <i>Answer:</i> Yes  <i>Reason:</i> The angle is less than <math>5^\circ</math></p>	<p><b>Scale 5C (0, 2, 3, 5)</b></p> <p>Accept correct answer in (iii) without unit</p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>Part (iv) correct with supporting work, e.g. some angle found for (iii), or angle in diagram measured to <math>13^\circ</math>, <math>14^\circ</math> or <math>15^\circ</math></li> <li>Work of merit in part (iii)</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>Part (iii) correct</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>Calculator in incorrect mode, otherwise fully correct</li> <li>Answer in (iii) not rounded correct to the nearest degree, otherwise correct</li> </ul>
(b)	$x^2 + 224^2 = 226^2$ $\Rightarrow x^2 + 50\,176 = 51\,076$ $\Rightarrow x^2 = 51\,076 - 50\,176 = 900$ $\Rightarrow x = \sqrt{900}$ $= 30$	<p><b>Scale 10C (0, 4, 7, 10)</b></p> <p><i>Low Partial Credit</i></p> <ul style="list-style-type: none"> <li>Indicates squaring of any relevant term</li> <li>Theorem of Pythagoras correctly stated</li> <li>Finds 101 252</li> </ul> <p><i>High Partial Credit</i></p> <ul style="list-style-type: none"> <li>Terms squared correctly in correct theorem</li> <li>Solves <math>x^2 = 224^2 + 226^2</math>, i.e. <math>x = \sqrt{101252} = 318.2 \dots</math></li> <li>Correct answer without work</li> </ul> <p><i>Full Credit –1</i></p> <ul style="list-style-type: none"> <li>Leaves answer as <math>\sqrt{900}</math></li> </ul>