



# Year 10 Maths B Homework Sheet No.21


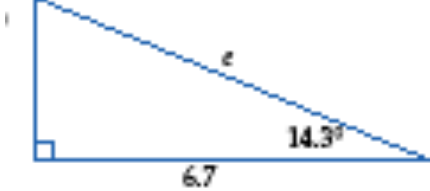
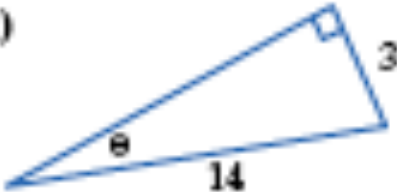
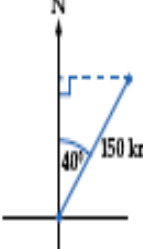

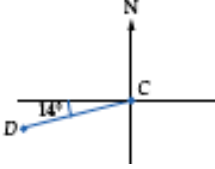
To be completed on loose-leaf paper.  
Show FULL working out.



**Aims:**

- To provide ongoing revision of skills and concepts
- To develop procedural knowledge and fluency.

**Need help? →**

<p>1</p> <p>A plane rises steadily at an angle of <math>10^{\circ}48'</math> to the horizontal. The altitude of the plane after it has travelled along a flight path of 2.6 km (to the nearest metre) is:</p> <p>A 487 m            B 496 m C 2554 m           D 13 875 m E 864 m</p>	<p>2</p> <p>Convert these angles to decimal degrees (to no more than two decimal places).</p> <p>(a) <math>15^{\circ}30'</math>            (b) <math>35^{\circ}16'</math>            (c) <math>23^{\circ}10'</math> (d) <math>76^{\circ}47'50''</math>        (e) <math>44^{\circ}59'20''</math>        (f) <math>8^{\circ}45'9''</math></p>
<p>3 Find the length of d...</p> 	<p>4 Calculate the unknown length</p> 
<p>5 Find the value of theta in D,M &amp; S</p> 	<p>6 A ship sails for 150 km on a bearing of <math>N40^{\circ}E</math>. How far north of its starting point is it, to the nearest kilometre?</p> 
<p>7 a)</p> <p>(a) The conventional bearing of point B from point A, as shown in the diagram, is:</p> <p>A <math>N35^{\circ}E</math>            B <math>S55^{\circ}E</math> C <math>N35^{\circ}W</math>            D <math>S35^{\circ}E</math> E <math>S55^{\circ}W</math></p> 	<p>8 b)</p> <p>The bearing of point D from point C, as shown in the diagram, is:</p> <p>A <math>076^{\circ}T</math>            B <math>256^{\circ}T</math> C <math>194^{\circ}T</math>            D <math>284^{\circ}T</math> E <math>166^{\circ}T</math></p> 

**ANSWERS:** You must show the mathematics used to get these answers. Simply writing the answer is not enough.

Q1) A,Q2) no answer given, Q3)  $d=45.04$  Q4) 6.91, Q5) 12,22,,25 , Q6) 115km, Q7) B, Q8) B