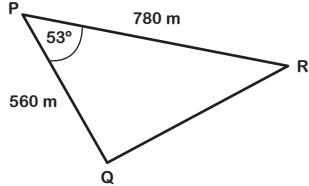
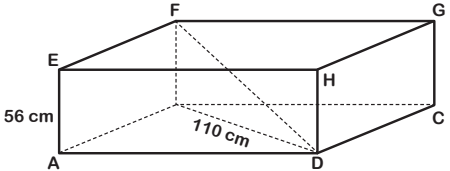
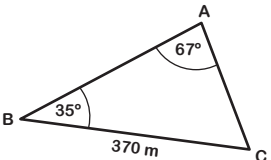
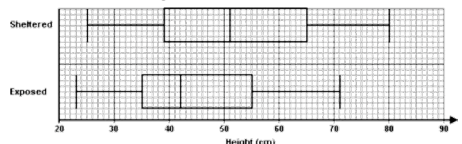


# GCSE Higher Revision Mat (2)



<p>1) Which of these fractions are equivalent to recurring decimals?</p> $\frac{3}{5} \quad \frac{2}{11} \quad \frac{7}{8} \quad \frac{4}{25} \quad \frac{1}{3}$	<p>2) Find the equation of the line which is perpendicular to <math>4x - y = 8</math> and passes through <math>(1, 7)</math>.</p>	<p>3) Calculate the area of the triangle, give your answer to 2 s.f.</p> 	<p>4) Simplify <math>\frac{3}{x-1} + \frac{x}{x^2-1}</math></p>
<p>5) The number of residents in a village at the start of year <math>t</math> is <math>P</math>. The number of residents at the start of year 1 was 625. Given that <math>P_{t+1} = 1.085P_t</math> How many residents live in the village at the start of year 3?</p>	<p>6) Factorise <math>8x^2 - 61x - 24</math>.</p>	<p>7) I wish to paint the outside walls of my house. A tin of paint covers <math>25 \text{ m}^2</math>, correct to the nearest <math>5 \text{ m}^2</math>. The outside walls of my house have an area of <math>320 \text{ m}^2</math>, correct to the nearest <math>10 \text{ m}^2</math>. Calculate the maximum number of tins of paint I may have to buy.</p>	<p>8) The probability that a driver passes the driving test on the first attempt is 0.8, but on the second attempt it is 0.7. Find the probability that Henry will fail on both attempts.</p>
<p>9) Calculate the angle between FD and the base.</p> 	<p>10) A badminton coach needs to select two players from his team for a doubles match. He is told he can select a mixed doubles team or a female doubles team. He has 4 male players and 7 female players on his team. Show that the total number of possible pairs he can choose equals 49.</p>	<p>11) Rationalise the denominator of this fraction: <math>\frac{10}{\sqrt{5}}</math></p>	<p>12) Find the <math>n</math>th term of the sequence: 10, 19, 34, 55, 82, ...</p>
<p>13) Solve the equation <math>x^2 - 3x - 5 = 0</math>. Give your answers to 2 decimal places.</p>	<p>14) Calculate the length AB. Give your answer to 2 s.f.</p> 	<p>15) Prove that the sum of any four consecutive odd numbers is a multiple of 8.</p>	<p>16) A certain species of plant grows in two locations, one sheltered and the other exposed. The two box plots below show the distributions of heights in the two locations.</p>  <p>Make two comparisons between the heights in the two locations.</p>