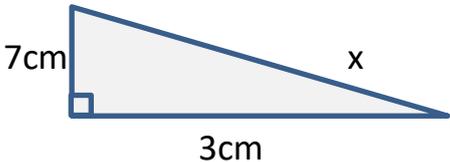
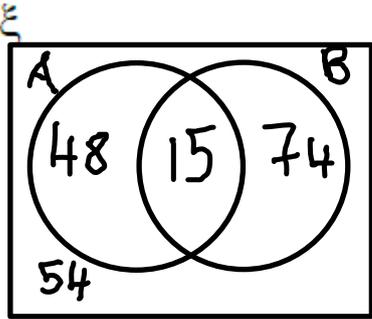
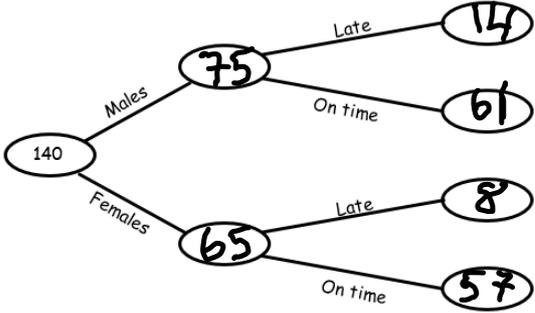
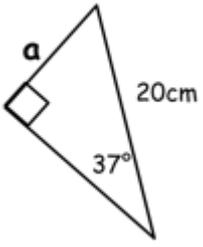
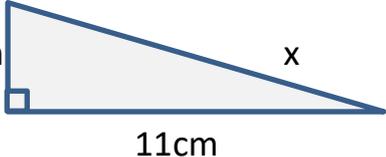
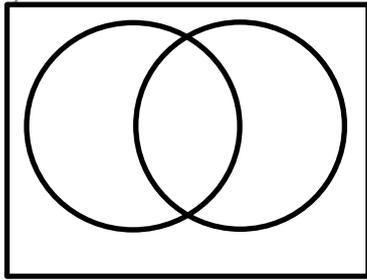
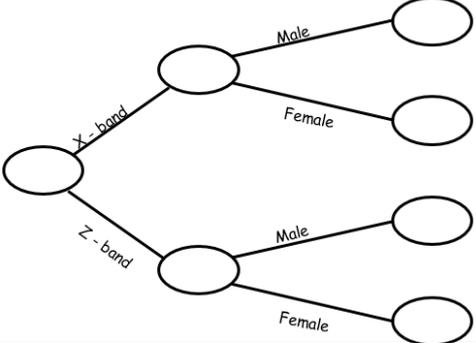
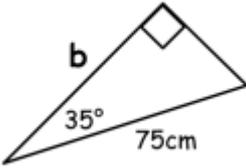


Q	Question	Answer
1	The four possible outcomes of an experiment are A, B, C and D. $P(A) = 0.16$ $P(A) = 2P(B)$ $P(C)=P(D)$ Work out $P(C)$	$P(A)=0.16$ $P(B)=0.08$ $P(C)=0.38$ $P(D)=0.38$
2	Work out $(2.3 \times 10^3) \times (4.1 \times 10^5)$ Give your answer in <b>standard form</b>	$9.43 \times 10^8$
3	<b>Factorise and solve</b> $x^2 + 3x - 18 = 0$	$(x+6)(x-3) = 0$ $X = -6$ or $3$
4	The volume of a sphere is $\frac{4}{3}\pi r^3$ Work out the <b>volume of a sphere</b> with a radius of 6cm to 3 sf	$905\text{cm}^3$
5	Calculate the length of x to 2dp 	$7^2 + 3^2 = x^2$ $58 = x^2$ $7.62 = x$
6	Students in sixth form are comparing their favourite fruit. 63 students like apples 89 students like bananas 15 students like both apples and bananas 54 students do not like either How many students are there in sixth form? You may use the <b>Venn diagram</b> to help you.	

7	<p>There are 140 pupils in Year 7. 75 are male, of these 14 were late to school on Monday. There were 8 girls who were late to school on Monday. Use this information to complete this <b>frequency tree</b>.</p>	
8	<p>A and B are different routes between 2 towns. The distance and <b>average speed</b> for each is  Route A 25 miles at 50 mph  Route B 20 miles at 30 mph  Which route takes the least time?  <b>Show your working</b></p>	<p><math>A = 25/50 = 30</math> mins  <math>B = 20/30 = 40</math> mins</p> <p>Therefore Route A is the quickest</p>
9	<p>James invests £2000 in a bank account with a <b>compound interest</b> rate of 1.3%.  Write a calculation that would give you the amount he has after 5 years.</p>	<p><math>2000 \times (1.013)^5</math></p>
10	<p>Betty sells t-shirts.  She charges £7 a t-shirt  She charges 10% extra for it gift wrapped.  One day Betty sells 74 t-shirts and 12 of these are asked to be gift wrapped.  Work out the total amount of money that Betty earned that day.</p>	<p><math>12 \times 7.7 + 62 \times 7 = \text{£}526.40</math></p>
11	<p>Solve the <b>simultaneous equations</b>  <math>5x + 2y = 4</math>  <math>4x - y = 11</math></p>	<p><math>x = 2, y = -3</math></p>
12	 <p>Calculate the missing side of the triangle.</p>	<p>12.04cm</p>
Total out of 12		

**Foundation/Higher Skills 2:** Work your way through the 12 Questions and I will post the answers next weekend, along with the skills 3 task.

Q	Question	Answer
1	<p>The four possible outcomes of an experiment are A, B, C and D.</p> <p><math>P(A) = 0.1</math></p> <p><math>3P(A) = 2P(B)</math></p> <p><math>P(C) = P(D)</math></p> <p>Work out <math>P(C)</math></p>	
2	<p>Work out <math>(3.5 \times 10^4) \times (2.7 \times 10^7)</math></p> <p>Give your answer in <b>standard form</b></p>	
3	<p>The diagram shows a square.</p> <div style="text-align: center;">  </div> <p>Work out the length of the square</p>	
4	<p>The volume of a sphere is <math>\frac{4}{3}\pi r^3</math></p> <p>Work out the <b>volume of a sphere</b> with a radius of 7cm to 3 sf</p>	
5	<p>Calculate the length of x to 2dp</p> <div style="text-align: center;">  </div>	
6	<p>Complete the <b>Venn diagram</b> with the following information:</p> <p>90 students take Biology</p> <p>35 students take both Biology and Geography</p> <p>18 students take Geography but do not take Biology</p> <p>There are 250 students in total.</p>	

7	<p>Year 9 has 250 students.          There are 2 bands in year 9: X band and Z band.          There are 140 pupils in X band, of these 80 are female.          There are 65 males in Z band.          Complete the <b>frequency tree</b></p>	
8	<p>A and B are different routes. The time and <b>average speed</b> for each is          Route A 30 minutes at 67 mph          Route B 75 minutes at 30 mph          Which route is the longest distance?  <b>Show your working</b></p>	
9	<p>James invests £4500 in a bank account with a <b>compound interest</b> rate of 5.2%.          Write a calculation that would give you the amount he has after 2 years.</p>	
10	<p>John has created an app that he sells for £1.50.          On Saturday 1200 people downloaded the app. Sales increased by 14% on Sunday.          The app store takes 5% of all money earned.          Work out the total amount of money that John received that weekend.</p>	
11	<p>Solve the <b>simultaneous equations</b>  <math>4x+3y=37</math>  <math>2x+y=17</math></p>	
12	 <p>Calculate the missing side of the triangle.</p>	
Total out of 12		