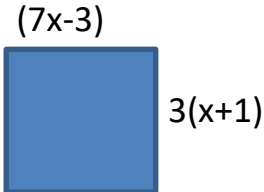
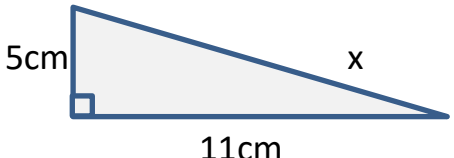
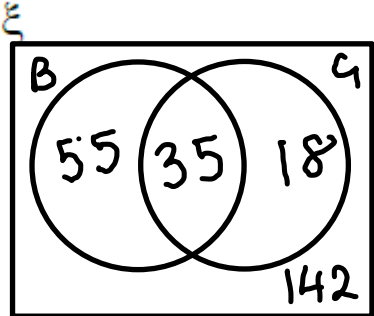
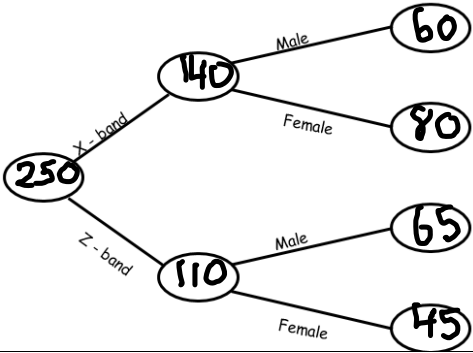
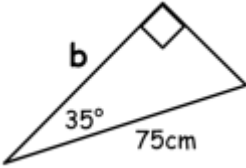
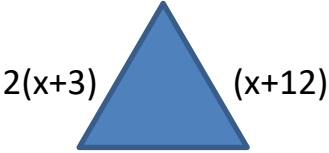
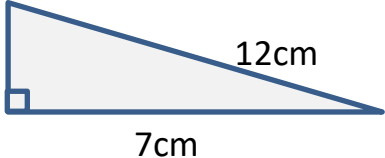
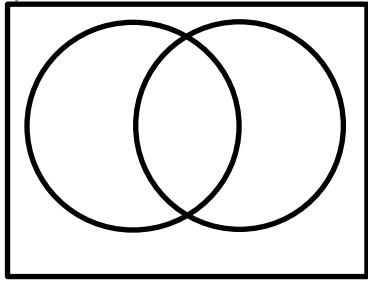
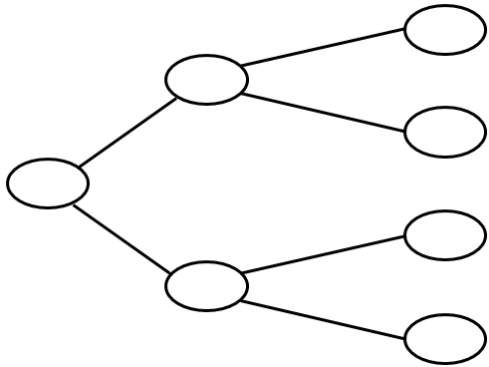
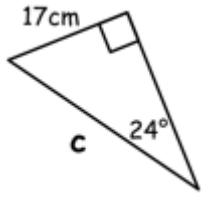


Q	Question	Answer
1	The four possible outcomes of an experiment are A, B, C and D. $P(A) = 0.1$ $3P(A) = 2P(B)$ $P(C) = P(D)$ Work out $P(C)$	$P(A) = 0.1$ $P(B) = 0.15$ $P(C) = 0.375$ $P(D) = 0.375$
2	Work out $(3.5 \times 10^4) \times (2.7 \times 10^7)$ Give your answer in <b>standard form</b>	$9.45 \times 10^{11}$
3	The diagram shows a square.  Work out the length of the square	$7x - 3 = 3x + 3$ $4x = 6$ $x = 6/4$  Length = 7.5
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 7cm to 3 sf	$1440\text{cm}^3$
5	Calculate the length of x to 2dp 	$5^2 + 11^2 = x^2$ $146 = x^2$ $12.08 = x$
6	Complete the <b>Venn diagram</b> with the following information: 90 students take Biology 35 students take both Biology and Geography 18 students take Geography but do not take Biology There are 250 students in total.	

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>	<p><math>A = 0.5 \times 67 = 33.5</math> miles  <math>B = 1.25 \times 30 = 37.5</math> miles          Therefore Route B is the longest</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>	<p><math>4500 \times (1.052)^2</math></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>	<p><math>1200 + 1200 \times 1.14 = 2568</math>  <math>2568 \times 1.5 = \pounds 3852</math>  <math>3852 \times 0.95 = \pounds 3659.40</math></p>
11	<p>Solve the <b>simultaneous equations</b>  <math>4x + 3y = 37</math>  <math>2x + y = 17</math></p>	<p><math>x = 7, y = 3</math></p>
12	 <p>Calculate the missing side of the triangle.</p>	<p>61.44cm</p>
Total out of 12		

**Foundation/Higher Skills 3:** Work your way through the 12 Questions and I will post the answers next weekend, along with the skills 4 task.

Q	Question	Answer
1	<p>The four possible outcomes of an experiment are A, B, C and D.  <math>P(A) = 0.2</math>  <math>2P(A) = P(B)</math>  <math>3P(C) = P(D)</math>                      Work out <math>P(C)</math></p>	
2	<p>Work out <math>(5.1 \times 10^{-3}) \times (3.2 \times 10^5)</math>                      Give your answer in <b>standard form</b></p>	
3	<p>The diagram shows an equilateral triangle.</p> <div style="text-align: center;">  </div> <p>Work out the perimeter of the shape.</p>	
4	<p>The volume of a sphere is <math>\frac{4}{3}\pi r^3</math>                      Work out the <b>volume of a sphere</b> with a radius of 2.5cm to 3 sf</p>	
5	<p>Calculate the length of x to 2dp</p> <div style="text-align: center;">  </div>	
6	<p>A group of 200 Year 7 students are asked if they own a dog or a cat.                      32 own both a dog and a cat;                      25 students only have a cat;                      95 students own a dog.                      Produce a <b>Venn diagram</b> to represent this situation.</p>	

7	<p>There are 100 members of a swimming club.  48 of the members are male.  17 of the male members are under 12, the rest are over 15.  26 of the female members are under 12, the rest are over 15  Complete the <b>frequency tree</b></p>	
8	<p>A and B are different routes. The time and distance for each is  Route A 25 minutes for 50,000m  Route B 2hours for 238km  Which route has the highest <b>average speed</b>?  <b>Show your working</b></p>	
9	<p>James invests £6000 in a bank account with a <b>compound interest</b> rate of 1.25%.  Write a calculation that would give you the amount he has after 8 years.</p>	
10	<p>A baker supplies bread rolls to a catering company. Bread rolls are sold in packs of 24 for £1.99. The company want 500 rolls each day.  How much will the bill be for one week, assuming they do not work on Sundays?</p>	
11	<p>Solve the <b>simultaneous equations</b>  <math>X+3y=7</math>  <math>2x-y=7</math></p>	
12	 <p>Calculate the missing side of the triangle.</p>	
Total out of 12		

