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| Can you name the 4 different transformations and describe what they mean? | Translation – move the shape up or down, left or right  Enlargement – make bigger  Reflection - mirror  Rotation - turn |
| What information do you need to give for a rotation? | 1. Centre of rotation 2. Size of turn (angle) 3. Direction (clockwise/anti-clockwise)   **CHECK WITH TRACING PAPER** |
| What information do you need to give for a reflection? | 1. Line of reflection (mirror line)   **CHECK WITH A MIRROR** |
| What information do you need to give for an enlargement? | 1. Scale Factor (how many times bigger) 2. Centre of enlargement (draw the lines to find it!) |
| What information do you need to give for a translation? | 1. How far left/ right 2. http://free-books-online.org/computers/computer-graphics/2d-transformations-i/images/CS602-%201%20to%2019_img_297.jpgHow far up / down   You can write like this:  x = left / right  Y = up / down |
| What is the perimeter of a shape and what is it measured in? | The distance around the edge   * Measure in cm or m |
| What is the area of a shape and what is it measured in? | The space inside the shape   * Measure in cm² or m² |
| How do you calculate the area of a rectangle? | Base x height  (or length x width) |
| How do you calculate the area of a triangle? | Base x height  2  Or (the same thing)  Length x width  2 |
| How do you calculate the circumference of a circle? | Circumference = π x d  (d = diameter) |
| How do you calculate the area of a circle? | Area = Π x r²  (r = radius) |
| What is volume and what is it measured in? | The space inside a 3D shape   * Measure in cm³ or m³ |
| How do you calculate the volume of a cuboid?  http://www.examples10.com/uploads/34f1be_cuboid.gif | Length x width x height |
| How do you calculate the volume of a prism?  http://www.mathsteacher.com.au/year7/ch09_polygons/06_polyhedra/Image11220.gif | Length x area of cross section  (length x area of shaded part) |
| Describe how you would construct a perpendicular bisector of a line. | http://www.onlinemathlearning.com/image-files/perpendicular-bisector_clip_image004.gif |
| Describe how you would bisect an angle. | http://strader.cehd.tamu.edu/geometry/bisectangle1.0/gifs/img3.gif |
| What three things can you remember about bearings? | 1. Start from North 2. Measure clockwise 3. Remember to give three numbers = eg. 065 |
| What do angles on straight line add up to? | 180 |
| What do angles in a triangle add up to give? | 180° |
| What can you say about these angles?  http://www.mathsisfun.com/geometry/images/vertically-opposite.gif | They are opposite  Opposite angles are equal. |
| What can you say about these angles?  http://bdaugherty.tripod.com/KeySkills/Images/correspondingAngles.gif | Corresponding (F) angles are equal. |
| What can you say about these angles?  [http://t0.gstatic.com/images?q=tbn:ANd9GcTgbWIcvu_Zty_X7GbYZT8zVS1R-EWZ8nlDmrK0gtumB4yp0GuC-hsoz4g:www.bbc.co.uk/schools/ks3bitesize/maths/images/alternate.gif](http://www.google.co.uk/imgres?imgurl=http://www.bbc.co.uk/schools/ks3bitesize/maths/images/alternate.gif&imgrefurl=http://www.bbc.co.uk/schools/ks3bitesize/maths/shape_space/parallels/revise2.shtml&usg=__zJAmjrgZQ8iNextsKIITrQsCjPE=&h=241&w=516&sz=4&hl=en&start=19&zoom=1&um=1&itbs=1&tbnid=r_acZESI4AmWEM:&tbnh=61&tbnw=131&prev=/images?q=ALTERNATE+ANGLES&um=1&hl=en&sout=1&rlz=1I7ADSA_en&tbm=isch&ei=HrbKTa3XCtHB8QOn78XbCA) | Alternate (Z) angles are equal |
| What do angles around a point add up to?  http://www.math-salamanders.com/images/gfs-angles-round-a-point.gif | 360° |
| How do you calculate 1 %? | Divide by 100 |
| How do you calculate 10%? | Divide by 10 |
| How do you multiply 2 fractions? | Top x top  Bottom x bottom |
| How do you add two fractions? | Cross multiply  (multiply the bottoms  Multiply diagonals and add) |
| How do you find a fraction of an amount? | Times number by the top of the fraction & Divide your answer by the bottom of the fraction. |
| What fraction is the same as 50%?  What fraction is the same as 25%?  What fraction is the same as 10%?  What fraction is the same as 1%? | ½  ¼  1/10  1/100 |
| What is the highest common factor of two numbers and how do you find it with prime factors? | Do ‘prime number trees’ for each  Circle numbers that are the same  Multiply these numbers together |
| How do you find the lowest common multiple of two numbers? | Write out the times table  for each number.  Circle the smallest number that  is the same in both. |
| How do you write a number as a product of its primes? (Do the prime factor decomposition?) | ‘Prime number tree’ |
| What is a prime number?  Give some examples | A number that can only be  divided by itself and 1.  2, 3, 5, 7, 11, 13, 17, 19, 23, 29 |
| How do you estimate the answer to something? | Round all of the numbers to 1 significant figure. |
| What are the multiples of a number? | All the numbers in its times table |
| What do you get when you :   1. Multiply a negative & a negative? 2. Multiply a positive & a negative? 3. Multiply a negative & a positive? 4. Multiply a positive & a positive?   Is it the same with division? | 1. Positive 2. Negative 3. Negative 4. Positive   Yes – division is the same |
| What should you do if you need to add and subtract negatives? | Draw a number line |
| What is a square number? | The answer you get when you multiply a number by itself. |
| Describe the correlations on these scatter graphs  Correlation Graphs | Positive correlation  No correlation  Negative correlation |
| Describe the relationship of this scatter graph.  image: scatter diagram | As the result in maths increases, the result in science increases. |
| How do you work out the:  Mean  Median  Mode  Range | Mean = add and divide  Median = middle (don’t forget to put them in order)  Mode = most frequent  Range = biggest - smallest |
| How do you work out the mean of a frequency table?  http://mathsteaching.files.wordpress.com/2008/01/frequency-tables1.jpg | 1. Calculate f x ***x*** 2. Find the total of f x ***x*** 3. Find the total of x 4. Mean = Total (f x x)   Total f |
| How do you work out an estimate for the mean of grouped data.  http://mathsteaching.files.wordpress.com/2008/01/frequency-tables1.jpg | 1. Find the mid points 2. Calculate f x midpoint 3. Find total of f x ***midpoint*** 4. Find the total of x 5. Mean = Total (f x midpoint)   Total f |
| What is the lower quartile?  Upper quartile?  Inter quartile range? | Lower quartile = quarter of the way along  Upper quartile = ¾ of the way along  Inter quartile range = upper quartile – lower quartile |
| What is this graph called? What do you need to remember about it?  [http://t2.gstatic.com/images?q=tbn:ANd9GcQ5z2g3SSJ1Tw9FyJet_ejueJiRzBotmZpWsq8mRRyNq-fZW89OLQWjGQ:www.webquest.hawaii.edu/kahihi/mathdictionary/images/stem_leaf_graph1.gif](http://www.google.com/imgres?imgurl=http://www.webquest.hawaii.edu/kahihi/mathdictionary/images/stem_leaf_graph1.gif&imgrefurl=http://www.webquest.hawaii.edu/kahihi/mathdictionary/S/stemleaf.php&usg=__Ft_aOCwbaGVno9x70Uq7PXaSusY=&h=223&w=358&sz=5&hl=en&start=1&zoom=1&itbs=1&tbnid=prxKxOCBu8a2PM:&tbnh=75&tbnw=121&prev=/images%3Fq%3Dstem%2Band%2Bleaf%26hl%3Den%26sout%3D1%26gbv%3D2%26ndsp%3D20%26tbm%3Disch&ei=VPzLTeqMKYy5twfT2vXuBw) | STEM AND LEAF   1. Always write the leaf in number order 2. Don’t forget to include a key! |
| A scatter graph with line of best fitWhat is this graph called and what do you need to remember about it? | A SCATTER GRAPH  Remember to draw a line of best fit through the middle of the points.  Do NOT join the points together. |
| imageWhat is this graph called and what do you need to remember about it? | A FREQUENCY POLYGON  Draw a bar chart and then join the middle of the bars together again. |
| image: cumulative frequency graph, What is this graph called and what do you need to remember about it? | A CUMULATIVE FREQUECY CURVE  Cumulative frequency = running total.  Always plot from the highest value in each group. |
| time (s) on x axis, distance (m) on y axis  What is this graph called? | A Speed Distance Time Graph |
| What is this called and what do the lines represehttp://edubuzz.org/blogs/nbhs3x1/files/2007/01/boxplot-2.JPGnt? | Boxand WhiskerBox Plot |
| Speed = | Speed = Distance  Time |

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| What does Solve mean? | Work out what the letter is  (Remember – whatever you do to one side, you do to the other – use opposites!) |
| Simplify   1. a + a + a 2. a x a x a | Simplify means make simpler   1. 3a 2. a³ |
| How do you Expand? | Multiply out the brackets  (Don’t forget to multiply both parts!) |
| How do you Factorise? | Factorise means put into brackets  (numbers / letters that go into both parts go at front of the brackets) |
| Find the Nth term of a sequence | 1. Work out the difference 2. Multiply by n 3. See what you need to add or subtract |
| Tell me about an Expression | Has no equals sign! |
| How do you Substitute? | Swap the letter for a number |
| How do you find the first three terms of a sequence given the nth term?  And how do you find the 10th term? | Let n = 1,  Let n = 2  Let n = 3  Let n = 10 |
| How do you Simplify or collect the terms? | Collect together the things that are the same  (REMEMBER to draw circles around them to keep the + or – with the right term.  Keep different letters seperate) |
| What does value mean? | A number |