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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Draw a scale drawing of your bedroom.**10 POINTS** | Draw as many diagrams as possible to prove the formula for the area of a trapezium.**10 POINTS** | Write a revision lesson to deliver on a topic of your choice.**10 POINTS** | Write an end of topic test for someone in your class on your most recent topic.**10 POINTS** | Write an article for a newspaper, explaining why it is important to study maths.**10 POINTS** | Prove 1+1=2 in the most complicated way you can.**10 POINTS** | Demonstrate Pythagoras Theorem using physical objects. **10 POINTS** | Pick a topic from science and show how you use maths in the topic.**10 POINTS** | Write a maths dictionary containing 20 mathematical terms.**10 POINTS** | Explain how to convert between centigrade and Fahrenheit. **10 POINTS** |
| Write a question with $\frac{2}{3}$ as the answer.**10 POINTS** | Design a menu for your family for a week. **10 POINTS** | How long would it take for you to walk to the moon?**10 POINTS** | Write a question with $\sqrt{2}$ as the answer.**10 POINTS** | Write three "always, sometimes, never" sentences for maths.**10 POINTS** | How many grains of rice would you need to fill your house?**10 POINTS** | Write step by step instructions on how to change the subject of an equation.**10 POINTS** | Design a revision poster on 3 topics you have done so far.**10 POINTS** | Write an exam question with mark scheme testing knowledge of averages.**10 POINTS** | Find the average temperature each month for your home town. Plot the information on a graph.**10 POINTS** |
| Design a lesson for Year 7 on an introduction to angles.**10 POINTS** | How many footballs would you need to go around the equator of the earth?**10 POINTS****10 POINTS** | Condense a topic onto one revision card.**10 POINTS** | Write a question with a mark scheme where you have to explain your answer.**10 POINTS** | What does it mean to reason mathematically?**10 POINTS** | What advice would you give to Year 9 who will start their GCSE Maths in September?**10 POINTS** | Choose any topic in maths and make a spider diagram summarising your knowledge.**10 POINTS** | Count how many steps it takes to walk around your bedroom.**10 POINTS** | Choose one piece of marked work in your book and re-do it, responding to feedback and making improvements where necessary. **10 POINTS** | Design an information sheet explaining how to convert between 12 and 24hour clock.**10 POINTS** |
| How many seconds have you been alive?**10 POINTS** | Pick a profession or career and try to list as many ways maths might be used in that job as you can.**10 POINTS** | How could you calculate the volume of your brain?**10 POINTS** | Write a list of 5 common mistakes you might find in an exam paper.**10 POINTS** | Using up to four 4s and any of the 4 operations, how many numbers can you make?**10 POINTS** | Show 4 different representations of a fraction**10 POINTS** | Write instructions on how to measure angles using a protractor.**10 POINTS** | Explain the difference between significant figures and decimal places.**10 POINTS** | Give an example to show when "two minus make a plus" is false.**10 POINTS** | Write an exam question and mark scheme testing knowledge of forming and solving equations.**10 POINTS** |
| Design a new flag. It must have at least one line of symmetry and three colours.**10 POINTS** | How many Rice Krispies are there in a box? How could you estimate this without counting them?**10 POINTS** | Investigate the London Eye. How may rotations does it make? How far does it travel each day?**10 POINTS** | How long would it take for you to walk around the UK?**10 POINTS** | Explain what a negative number is.**10 POINTS** | Carry out a survey in your house, it could be on anything. Display the data using the appropriate chart.**10 POINTS** | Choose any topic. Make a set of cards of key words and a second set of definitions. Mix them up and find the matching pairs. **10 POINTS** | Draw a poster with the key points on circle theorems.**10 POINTS** | Write an exam question testing the knowledge of circle theorems.**10 POINTS** | Write a homework guide for parents so that they can help their child with maths. **10 POINTS** |
| Explain how to convert fractions to decimals and percentages. **10 POINTS** | Explain the difference between compound and simple interest. **10 POINTS** | Write 5 key points to remember when answering questions on speed, distance and time.**10 POINTS** | Draw a flow chart to explain how to round to degrees of accuracy.**10 POINTS** | Write a tree diagram question without replacement.**10 POINTS** | Look for data in a newspaper or TV report. Explain why it might be misleading.**10 POINTS** | Explain how to convert fractions to decimals and percentages.**10 POINTS** | What is the difference between HCF and LCM?**10 POINTS** | Can you draw a diagram to explain the formula for the area of a parallelogram.**10 POINTS** | Explain how to convert fractions to decimals and percentages.**10 POINTS** |
| Write 10 quick questions on basic number skills. **10 POINTS** | Create a poster explaining how to carry out loci questions.**10 POINTS** | Find 5 exam-style questions and rank them in order of difficulty, then decide which order to answer them.**10 POINTS** | Write 10 quick questions on basic probability skills. **10 POINTS** | Design some misleading 'best buy' labels. **10 POINTS** | Write instructions on how to use 4 of the calculator functions.**10 POINTS** | Write a blog post explaining what you have done during the time off school. **10 POINTS** | Describe 5 ways to effectively revise maths.**10 POINTS** | What is a surd? Convince me that they are useful!**10 POINTS** | What are the different ways to sample? What are the pros and cons of each method?**10 POINTS** |
| Show two different methods for sharing out in a ratio. **10 POINTS** | Write 10 quick questions on basic algebra skills. **10 POINTS** | Draw a flow diagram showing how to calculate percentage increase and decrease.**10 POINTS** | Find a button on your calculator which you don’t know how to use and see if you can find what it is for.**10 POINTS** | What is the difference between a factor and a multiple? Give an example of when you use both of these in maths. **10 POINTS** | Write 10 quick questions on basic shape skills. **10 POINTS** | What are the laws of indices? Write an algebraic example for each one.**10 POINTS** | What is the definition of an outlier? (using quartiles)**10 POINTS** | Write a question that would require a Venn diagram with 3 sections to answer it.**10 POINTS** | How do you know whether to use the Sine Rule, Cosine rule or trig ratios? Write a flow chart to help you decide when faced with a problem.**10 POINTS** |
| Prove that the product of two odd numbers is even.**10 POINTS** | Complete a 'Thinking Hard Revisit' mat on inequalities**.****10 POINTS** | Write a list of 5 definitions of words which link to the topic of probability.**10 POINTS** | How many ways can you solve a quadratic? List them with clear explanations of each.**10 POINTS** | What are the key points to remember when drawing boxplots/using them to compare distributions? Write a revision card. **10 POINTS** | The average person uses 27 sheets of toilet paper a day. A toilet roll has 100 sheets. How many toilet rolls does a family of 4 need in a week?**10 POINTS** | Draw diagrams of Venn diagrams to show the union, intersection and complement.**10 POINTS** | What are the exact values for trig that you need to know? Write a revision card for these.**10 POINTS** | Research – where are trig graphs used/seen in real life?**10 POINTS** | Draw a flow diagram to show how to rationalise a surd.**10 POINTS** |
| Write a set of revision cards on how to factorise quadratics.**10 POINTS** | Draw a diagram explaining how to calculate speed, distance and time. **10 POINTS** | The number eight comes first if all numbers were arranged alphabetically. Which would come last?**10 POINTS** | Write 10 quick questions on basic algebra skills. **10 POINTS** | Draw a poster explaining inequalities.**10 POINTS** | Why do we use Pythagoras? Convince me!**10 POINTS** | Design a lesson for Year 7 on an introduction to ratio.**10 POINTS** | Investigate different tests for divisibility of numbers. Create a poster to show these.**10 POINTS** | Explain why triangles, squares and hexagon are the only regular polygons which tessellate.**10 POINTS** | What is the only number which is twice the sum of its digits?**10 POINTS** |