GCSE Mathematics

General Advice from the Examiner’s Board (Foundation Tier):

* practice arithmetic processes; in particular: short division and negative number arithmetic
* ensure that all working is shown in a logical, ordered fashion and can be easily read
* learn and be able to recall metric conversions, for example, 1 kg is 1000 g
* remember to divide by two when finding the area of a triangle, i.e. use ½ × base × height
* practice estimating values to calculations by first rounding given values
* consolidate work on ratio and the links between ratios and fractions
* learn and be able to use metric conversion scale factors
* take care when entering negative numbers into a calculator particularly in conjunction with the ‘square’ button
* show all working and consider the final answer to check if it is reasonable for the context of the question
* ensure that the definitions of mathematical terms such as prime and HCF are known
* practice ‘explain’ and ‘give reason’ type questions
* present working legibly and in an organised way on the page so that the order of the process of solution is clear and unambiguous
* show all working out particularly in questions where this is explicitly stated
* ensure that they are familiar with the correct use of their calculator
* practise algebraic manipulation and derivation, the application of ratios, scaling and rates
* spend more time reading the fine detail of the question and avoid giving answers that do

 not answer the question posed

* use the correct figures given in the question

GCSE Mathematics

General Advice from the Examiner’s Board (Higher Tier):

* Be reminded to provide the units in a question on area (or volume) when the units are not given on the answer line.
* Practise their arithmetic skills, particularly division and operations with fractions and decimals.
* Practise working out estimates by rounding numbers and develop an understanding of the purpose of rounding so that they can choose appropriate rounded values.
* Practise subtracting one algebraic expression from another, especially expressions with negative terms, and use brackets more efficiently.
* Give correctly worded reasons when presenting a geometric proof.
* should be encouraged to use the most efficient methods when there is more than one available.
* learn how to use calculators properly, especially in relation to the substitution of negative numbers into formulae that require them to be squared, and in working to a high degree of accuracy, rather than rounding too soon and losing accuracy.
* spend greater time practising new content such as vectors, functions and estimated speed from a distance time graph.
* continue to practise questions targeting AO3 (problem solving questions) and learn to structure solutions clearly.
* use correct mathematical language when giving reasons in questions targeting geometry.
* practise writing clear explanations, bearing in mind exactly what is asked in the question and what evidence you should give to support your answer.
* learn standard techniques involving the use of scale factors in the context of similar shapes.
* practise expanding brackets and collecting terms especially where negative signs are involved.
* carry out a common sense check on the answers to calculations, so for example you should expect the number of red counters to be a whole number.
* carry out a check of your solution(s) for an equation by substituting them back into the equation.
* practise solving equations involving algebraic fractions.