

Guidelines in Mathematics (Years 7 – 11)

In mathematics, good presentation is essential for good understanding. Therefore, it is worth getting into good habits from the start. These guidelines should help.

Mathematical presentation

1. For each lesson, write the date and title, underlining both.
2. Write in blue or black ink only.
3. Number each question.
4. Extract enough information from the question, so that it is clear exactly what the problem is when you write down your answer. This is useful when you come back to revise it several months later.
5. Mathematics must read well. It should make sense, line by line, reading from top to bottom.
6. You must show all your working out. You will gain little credit for the answer alone. Neither can you expect an examiner, or teacher, to sift through your working looking for the answer. It is your responsibility to present the answer clearly and demonstrate your knowledge.
7. You should never have more than one '=' sign on a line. Equal signs should line up beneath each other.

For example,

$\frac{8+2 \times 3}{7} = \frac{8+6}{7} = \frac{14}{7} = 2$ is not good presentation. Three equals signs appear on one line.

However,

$$\begin{aligned} \frac{8+2 \times 3}{7} &= \frac{8+6}{7} \\ &= \frac{14}{7} \\ &= 2 \end{aligned}$$

is the correct way to set out the solution.

8. You may underline or highlight your answer.
9. If you make a mistake:
 - (a) Do not use correction fluid (Tippex etc.).
 - (b) Do not engrave another number over the top of a wrong number.
 - (c) Cross out the mistake with a neat ruler line and re-do the question.

Solving equations

We solve equations by '**doing the same operation to both sides**'. Solving an equation is a three-stage process

- Stage (i) Write down the equation
Stage (ii) Write down the equation again and, in addition, do the same operation to both sides. (The operation should be written in the margin)
Stage (iii) Simplify the equation.

Stages (ii) and (iii) are repeated until the equation is solved.

Example

Solve $3x + 2 = 14$

	$3x + 2 = 14$	stage (i) (write down the equation)
(-2)	$3x + 2 - 2 = 14 - 2$	stage (ii) (the operation is to 'subtract 2' from both sides)
	$3x = 12$	stage (iii) (simplify the line above)
$(\div 3)$	$\frac{3x}{3} = \frac{12}{3}$	repeat stage (ii) (the operation is to 'divide both sides by 3')
	$x = 4$	repeat stage (iii), simplify and the equation is solved.
	LHS = RHS	

Note: The '=' signs should always be in line beneath each other. This keeps the left hand side (LHS) and the right hand side (RHS) of the equation separate, and is the key to solving equations successfully.

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Graph work

1. Draw the axes in pencil.
2. Label the axes in pen, not forgetting to label the 'x' axis and 'y' axis
3. Plot each point with a small pencil cross or dot.
4. Draw lines with a sharp pencil only.
5. Draw straight graphical lines with a ruler, extending them as far as the end numbers on each axis.
6. Draw curves with a single smooth line, passing through each point but not extending beyond the first and last point plotted.
7. Label the graph with its equation.
8. Give the graph a meaningful title.

Books

1. You may cover your books,.
2. No writing should appear on the cover, except for your name, form, subject and teacher.
3. You will be issued with two books - a notebook and a classwork/homework book. If you have forgotten your book you must use your rough book and copy the work up the same night.
4. When you have finished your book, it will be signed off by your teacher and replaced. You will not be issued with a new book unless your old book has been presented and complete. Do not tear pages out - you will only be asked to stick more pages in before a new book is issued.

Marking

In class, always mark answers that are read out by your teacher. Ensure that all necessary corrections are done. Your teacher will check that you are doing this each time you hand your book in for marking

Homework

There are no excuses for late or incomplete homework, unless you are away on the day of setting work or on the day of 'handing in' work.

If you are away **on the day that the homework is set**, you must collect the homework from either your teacher, or a friend immediately upon your return. Your teacher may allow you extra time, but it will not exceed your period of absence.

If you are away **on the day of handing in**, you must hand the work to your teacher personally on the day of your return. Do not wait until the next lesson. It is your responsibility to find your teacher.

Failure to hand in work, or complete all the work set, will result in a reduction in marks the first time; a mathematics detention and incident form the second time and a school detention on the third occasion.

Copying

1. Copy up all work after you have been away - but, if you have copied up work, make sure you understand it and that you have attempted some of the questions on your own. Copying up alone, has no real impact on your understanding of the missed topic.
2. Do not copy others homework. You learn nothing from this.
3. Do not let your friends copy your homework. You are not helping your friends by doing this.

...and remember

If you are not sure about anything, ask your teacher.