

Mathematics Department

Aspire TODAY *Inspire* TOMORROW

Mathematics GCSE – What it entails

- Pearson Edexcel: 3 papers, each 90 minutes long
- 1 non-calculator paper; 2 calculator papers
- Questions are 1 – 7 marks; emphasis on workings
- Foundation Grade 1 – 5
- Higher Grade 3 – 9
- GCSE is given for 'mathematics' and does not reference the tier
- Decision on tier of entry is finalized in February of Year 11; but students need to know where they are at before then!

Foundation	Grade	Higher
	9	90%
	8	77.5%
	7	65%
	6	52.5%
75%	5	40%
62.5%	4	27.5%
50%	3	15%
30%	2	
15%	1	
	U	

These are approximate % scores – it changes every year!

Mathematics GCSE – What colleges and employers are looking for

Mathematics is nationally the most popular A level choice (and most respected by universities). Generally, colleges will ask for a minimum Grade 7 at GCSE.

Many employers will look for a Grade 5 as a 'Good' pass

4 is a pass ('C'). Students who fail to meet this are required to retake at college (until turning 18)

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Being prepared for maths

- Students should look after their own books in year 11
- Students need a MODERN scientific calculator
- Students who have and use their own calculator do better in exams!



What does it mean to do maths?

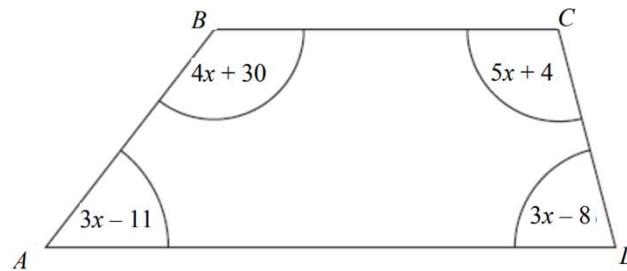


Department
for Education

Ensure that all pupils ...
Become **fluent** in the
fundamentals of
mathematics
Reason mathematically
by **following a line of
inquiry**
Can solve problems ...
persevering in seeking
solutions

Typical 4-mark crossover question

$ABCD$ is a quadrilateral.



All angles are measured in degrees.

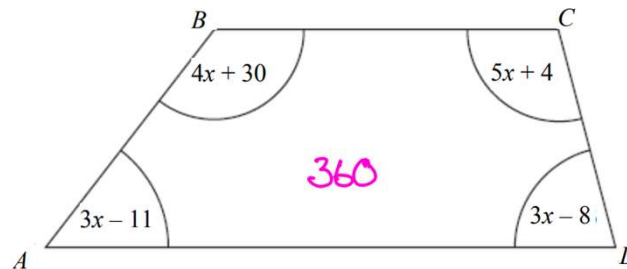
Show that $ABCD$ is a trapezium.

(Total for Question 7 is 4 marks)

What does acceptable work look like?

- Clearly laid out method
- Steps can be followed by the examiner & conclusion is clear
- Maths teachers model methods in class
- Students need to practice their working (before they get into the exam!)

$ABCD$ is a quadrilateral.



All angles are measured in degrees.

Show that $ABCD$ is a trapezium.

$$4x + 5x + 3x + 3x + 30 + 4 - 8 - 11 = 360$$

$$15x + 15 = 360$$

$$15x = 345$$

$$x = \frac{345}{15}$$

$$= 23$$

$$A = 3 \times 23 - 11 = 58$$

$$B = 4 \times 23 + 30 = 122$$

$$A + B = 58 + 122$$
$$= 180$$

$$C = 5 \times 23 + 4 = 119$$

$$D = 3 \times 23 - 8 = 61$$

$$C + D = 119 + 61$$
$$= 180$$

$ABCD$ is a trapezium as there are two pairs of co-interior angles.

(Total for Question 7 is 4 marks)

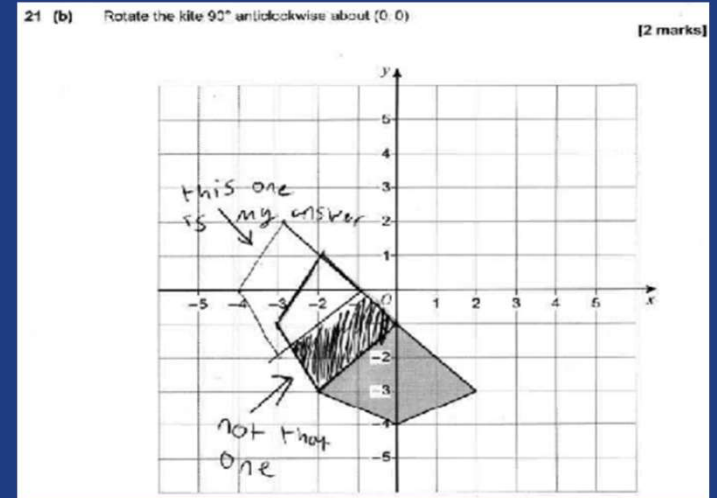
What does unacceptable work look like?

- These have been provided by the Exam board as examples of '0' scores
- Workings need to be laid out clearly
- Questions need to be answered fully
- Students MUST use a pencil for diagrams

Handwritten mathematical work for a problem involving Pythagoras' theorem. The work is messy, with multiple lines of equations, some crossed out, and a final answer of 0.2. It includes the instruction "Use Pythagoras' theorem to work out the exact value of $\frac{x}{y}$ ".

9 (b) Work out the lowest common multiple (LCM) of 12 and 15 [2 marks]

Answer 3 or 60



Revising for maths

We offer free after school revision sessions for all year 11 students. In the Autumn term these are:-

Tuesday: Drop-in sessions

Wednesday: Foundation Maths

Wednesday: Higher Maths


3:30 – 4:30 pm

Room T7

Skills practice

- **Sparx** 
Homework
Independent learning

[Sparx Maths](#)

- **Corbettmaths** 
How to videos
Practice questions/ans

[Videos and Worksheets – Corbettmaths](#)


- **MathsMadeEasy** 
Revision by topic/grade
Sample questions

[Edexcel GCSE Maths Revision | Past Papers | Tests | Worksheets \(mmerevise.co.uk\)](#)

Past paper questions

- **Provided by school**
Materials on Sharepoint /
Edulink

[Maths - Home \(sharepoint.com\)](#)

- **Maths genie** 
Has past papers with
sample answers written in
a student friendly way

<https://www.mathsgenie.co.uk/papers.php>

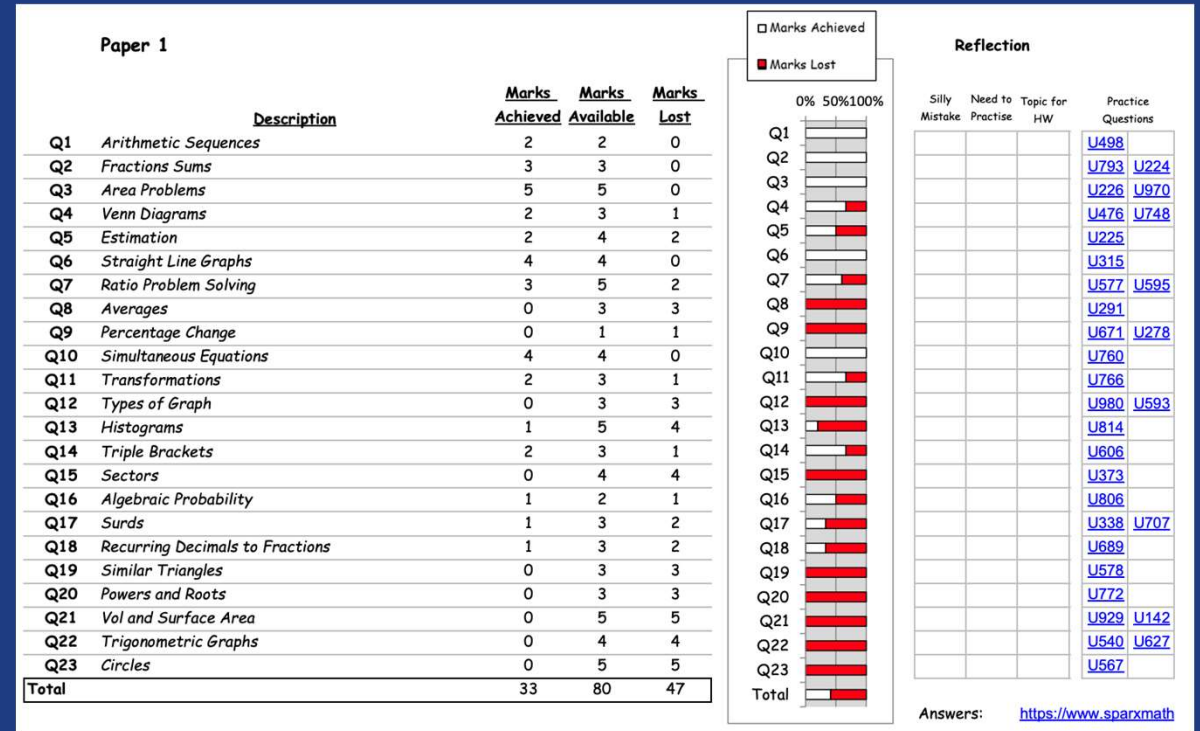


How can you help at home?

- Look through your child's exercise books with them
 - ✓ What have they been studying?
 - ✓ Are they correcting their own work & modelling answers?
- If possible, provide a quiet space for revision
 - ✓ GCSE maths is based on an ability to independently solve problems
- If possible, print out revision lists and past papers
 - ✓ It's helpful to practice writing answers (most students who use a laptop for other subjects will still do their GCSE maths on paper)
- Make sure they come to school with the right equipment
 - ✓ Students who have and practice using their own equipment will do better in their exams!

How does the school help?

- The school provides revision lists and (in Spring term) packages of past papers and exam questions to work through
- Students take their completed mocks home & get a current 'grade' with a detailed breakdown of where they are gaining / losing marks
- Providing for a focussed discussion at parents evening
- After completion of the curriculum time is given in lessons to revision and exam practice





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Please feel free to ask questions
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