

KING EDWARD VI



Making the Grade Evening

Mathematics



Key Facts: AQA Mathematics

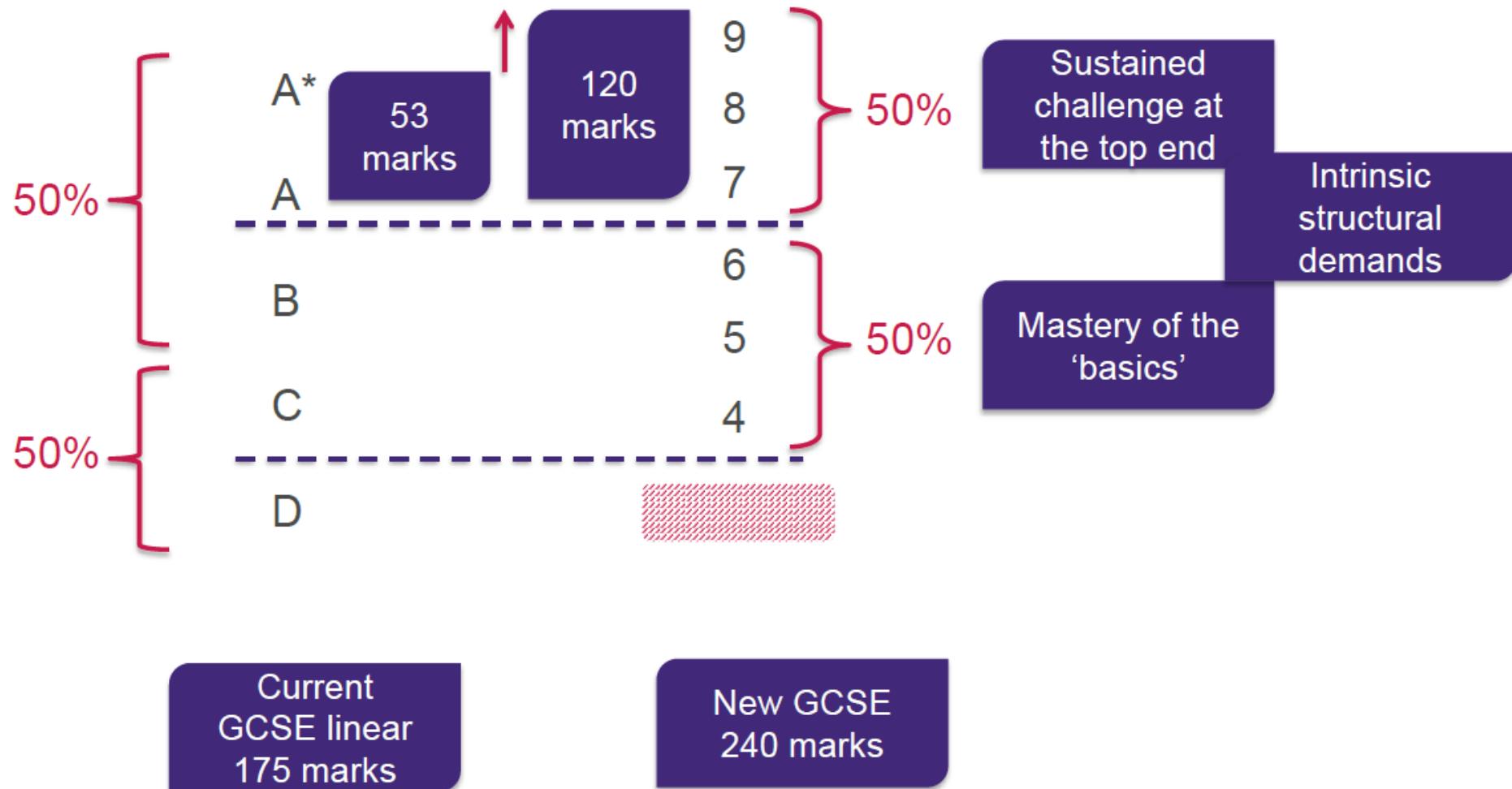


- 100% Examination at the end of the course;
- Three written papers:
- Tiered papers
 - Higher Tier grades 4 – 9 available;
 - Foundation Tier grades 1 - 5 available;
- 1 hour 30 minutes
- 80 marks on each paper

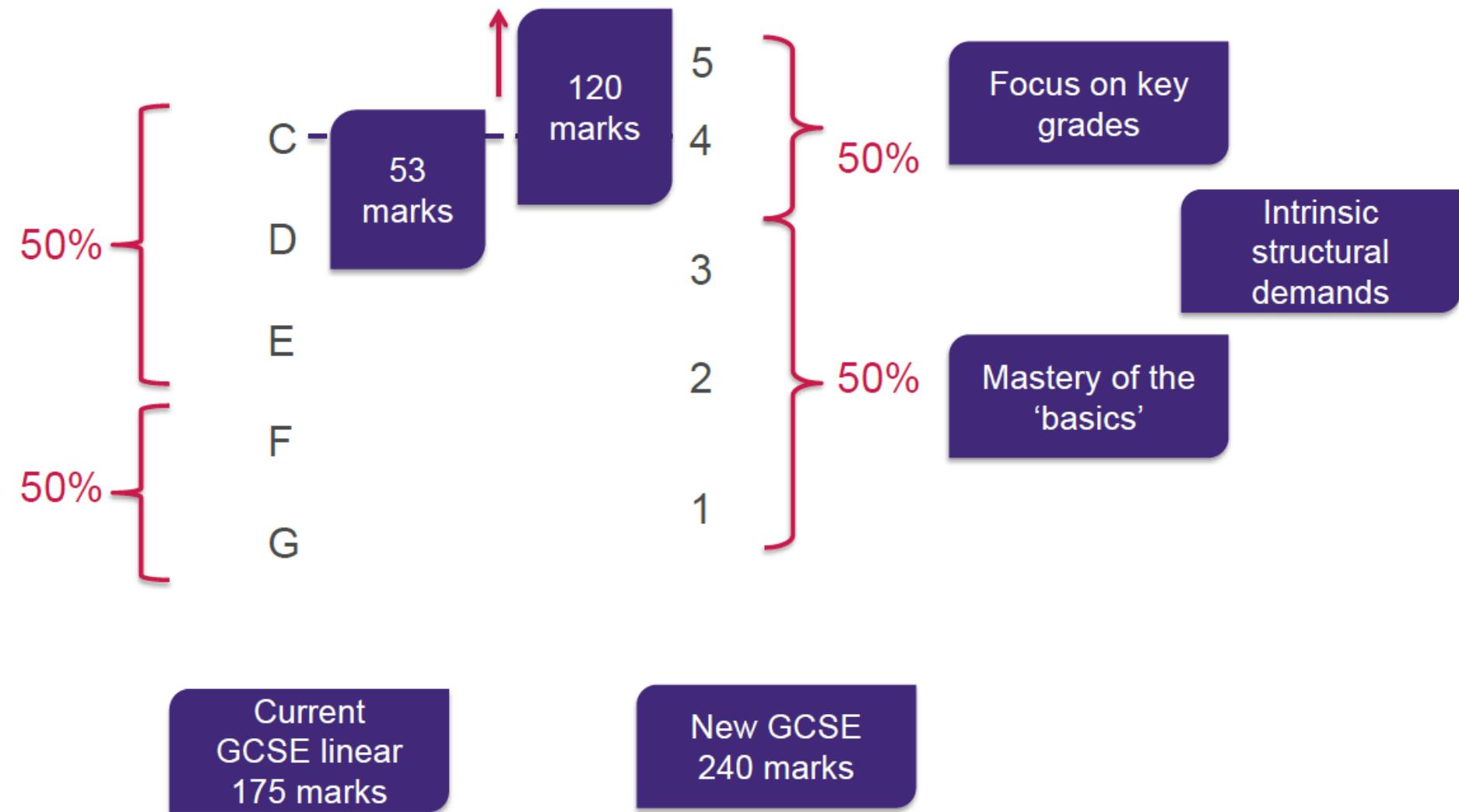


Paper 1: non-calculator	Paper 2: calculator	Paper 3: calculator
Content <ul style="list-style-type: none">Content from any part of the specification may be assessed	Content <ul style="list-style-type: none">Content from any part of the specification may be assessed	Content <ul style="list-style-type: none">Content from any part of the specification may be assessed
Assessment <ul style="list-style-type: none">1 hour 30 minuteswritten exam80 marks$33\frac{1}{3}$ of GCSE	Assessment <ul style="list-style-type: none">1 hour 30 minuteswritten exam80 marks$33\frac{1}{3}$ of GCSE	Assessment <ul style="list-style-type: none">1 hour 30 minuteswritten exam80 marks$33\frac{1}{3}$ of GCSE

- Students will be required to answer all questions on all papers
- The assessment structure will be the same for both foundation and higher tiers

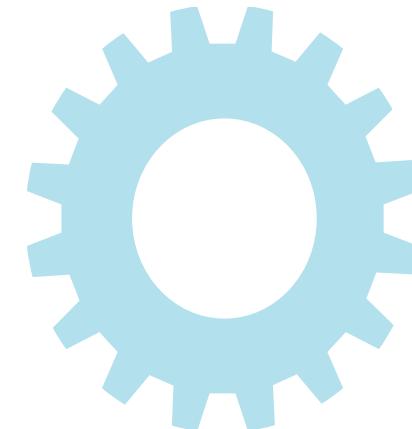


Foundation tier structure





IMPORTANT DATES



Key Dates – Practice Mocks



Year 11 Mock Examinations PPE (1)

Wednesday 16th October 2024 – Paper 1;

Tuesday 22nd October 2024 – Paper 2;

Year 11 Mock Examinations PPE (2)

Week beginning Monday 27th January 2025;

Papers 1, 2 & 3 – dates TBC



Provisional Examination Dates

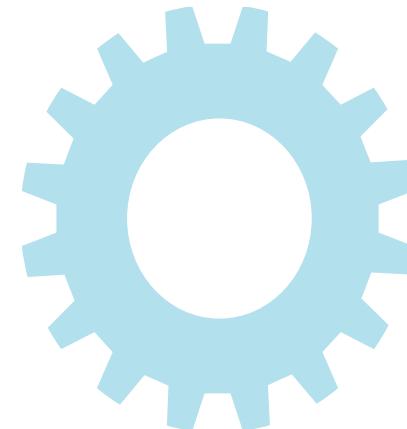


- GCSE Mathematics Paper 1 (Higher and Foundation Tier)
Thursday 15th May 2025;
- GCSE Mathematics Paper 2 (Higher and Foundation Tier)
Wednesday 4th June 2025;
- GCSE Mathematics Paper 3 (Higher and Foundation Tier)
Wednesday 11th June 2025;





Having the correct
equipment for
examinations!



EXPECTATIONS



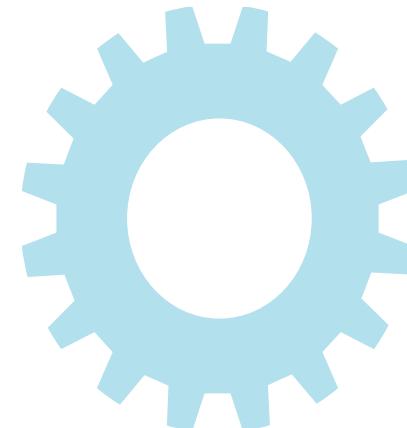
Equipment

- Scientific Calculator
- Black pen
- Pencil
- Sharpener
- Rubber
- Ruler
- Protractor
- Pair of compasses





INTRODUCTION TO SUCCESSFUL REVISION



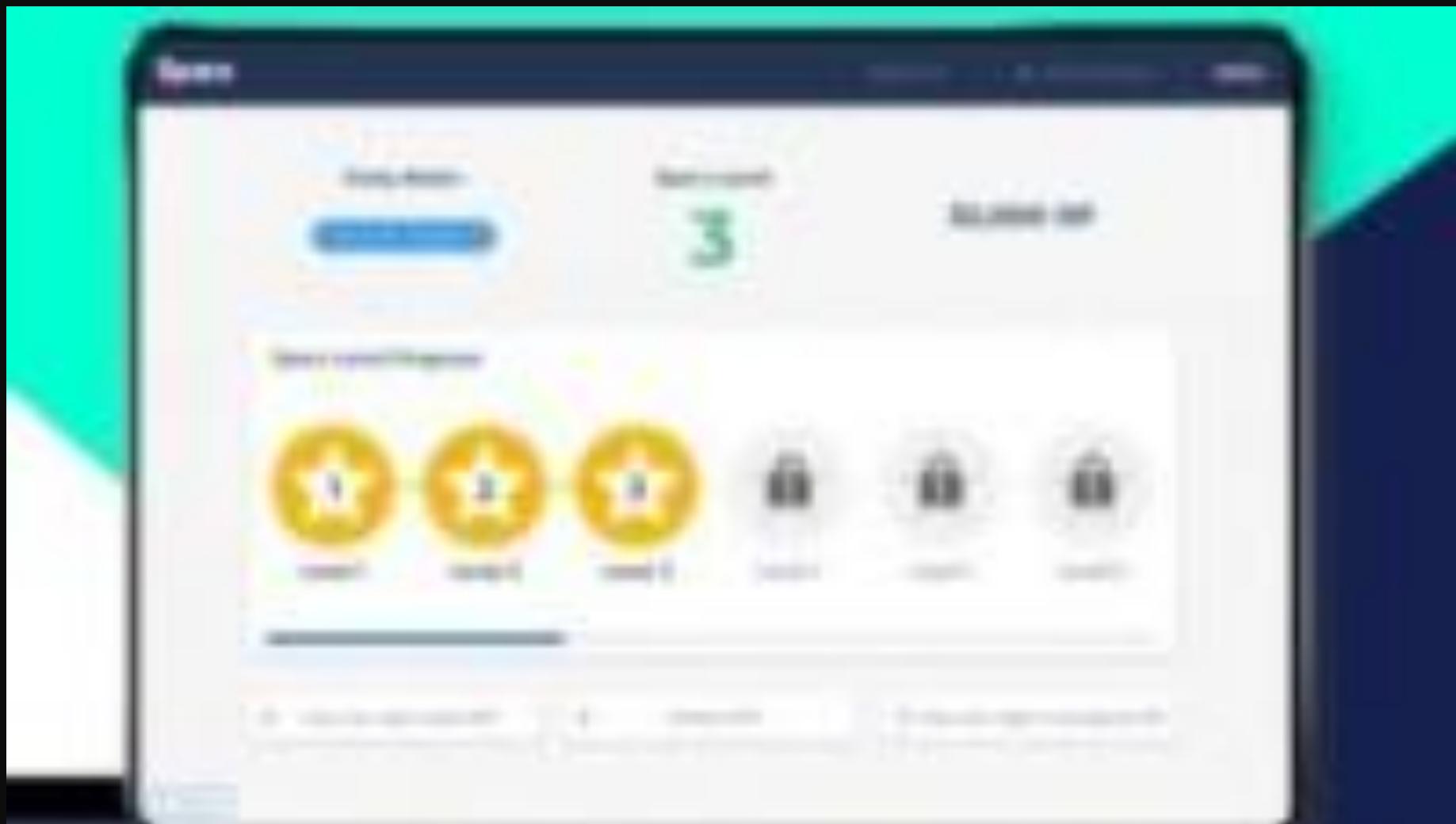
REVISION EXPECTATIONS



Managing Yourself!



Home Learning - Sparx



How you can Help!

<https://hegartymaths.com>



Collecting like terms 1

Example

Simplify the following expression

$$2x + 5y + z - 7x + 4y -$$

$$= -5x + 6y - 2z$$

NOTE: $6y - 5x - 2z$

The screenshot shows a HegartyMaths lesson titled "156 - Collecting like terms 1". The lesson is part of the "Algebra > Manipulating expressions" section. The navigation bar includes "Progress" and "Set work" buttons. The main content area shows a step-by-step guide with the first step completed: "Collect like terms" and the expression "7x - 2x". A text input field is provided for the student to enter their answer. The right sidebar, titled "Strands", lists various mathematical topics with their corresponding skills and numbers:

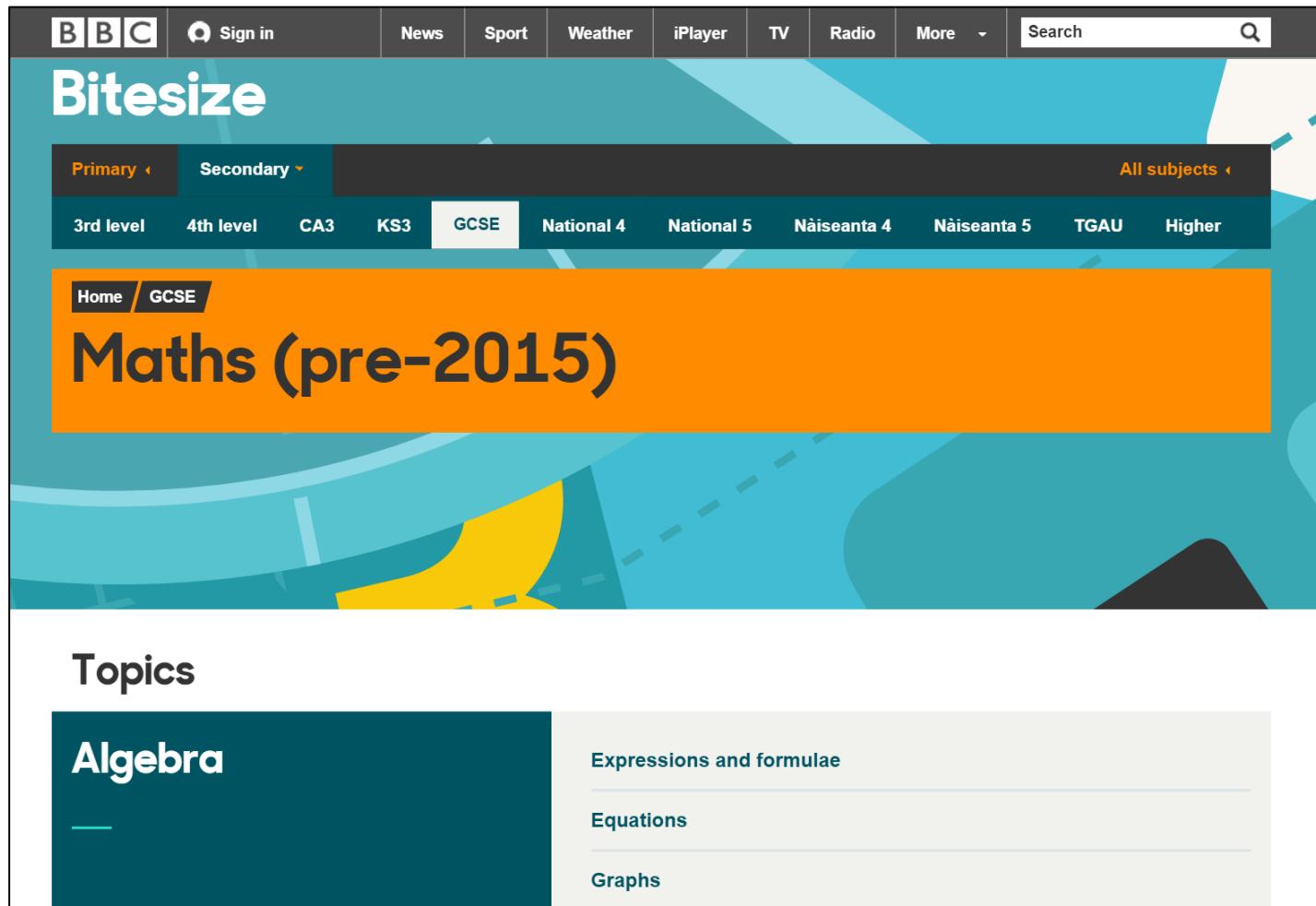
- Number: Skills 1-150, 743-772, 774-777
- Algebra: Skills 151-327, 778-811
- Ratio, proportion & rates of change: Skills 328-348, 739-742, 864-871
- Geometry & measure: Skills 455-461, 477-565, 567-606, 608-669, 674-738, 812-863
- Probability & sets: Skills 349-391, 670-673
- Statistics: Skills 392-454

At the bottom of the page is a virtual keyboard.

How you can Help!



<http://www.bbc.co.uk/education/subjects/z6pfb9q>



The screenshot shows the BBC Bitesize website for Maths (pre-2015). The top navigation bar includes BBC, Sign in, News, Sport, Weather, iPlayer, TV, Radio, More, and a search bar. Below this, a secondary navigation bar shows "Secondary" selected, with options for Primary, All subjects, 3rd level, 4th level, CA3, KS3, GCSE, National 4, National 5, Nàiseanta 4, Nàiseanta 5, TGAU, and Higher. The main content area features a large orange banner with the text "Maths (pre-2015)". Below the banner, the word "Topics" is displayed, followed by a list of topics including "Algebra", "Expressions and formulae", "Equations", and "Graphs".



How you can Help!



YouTube GB

Expand & simplify 2 Single Brackets

Ex1 $2(x + 3) + 3(x + 5)$ = $5x + 21$ ✓

Ex2 $3(2x + 4) + 2(4x + 1)$ = $14x + 14$

Ex3 $3(2x - 4) + 2(4x + 1)$ = $14x - 10$

Ex4 $5(2x + 4) + 2(x - 3)$

Ex5 $5(2x + 4) - 2(x - 3)$

It's gone. [Undo](#)
What was wrong with this ad?
 Repetitive
 Already purchased
 Not interested

Google

Up next

Autoplay

- GCSE Revision Video 5 - Expand double brackets by HEGARTYMATHS 9,706 views
- GCSE Quick Revision List by HEGARTYMATHS
- GCSE Revision Video 3 - Expanding 1 Bracket (2) by HEGARTYMATHS 9,248 views
- Panasonic CZ950 4K OLED TV - first look by What Hi-Fi? 1:24

GCSE Revision Video 4 - Expanding 2 single brackets

HEGARTYMATHS

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GCSE Revision Video 4 - Expanding 2 single brackets

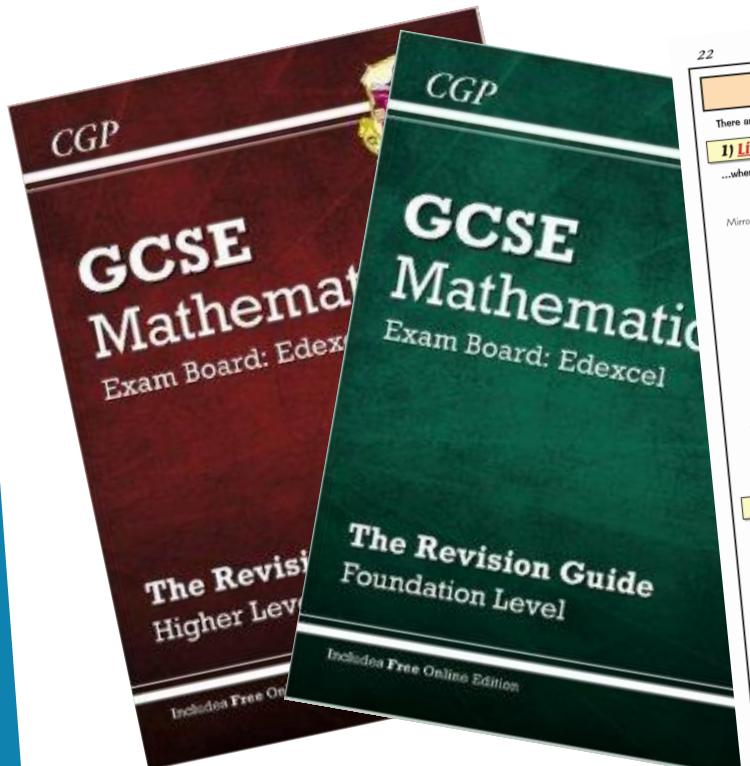
SHOW MORE

ALL COMMENTS (0)



Revision Guides

- Students need to purchase a revision guide from **school finance office** to support learning;



Section Two — Shapes and Area

22 Symmetry

There are **Two types** of symmetry, and guess what — you need to know about them **both**.

1) Line Symmetry is...

...where you draw a **MIRROR LINE** across a picture and **both sides will fold exactly together**.

2) Rotational Symmetry is...

...where you **turn** (rotate) a shape around into different positions that **all look the same**.

How to Draw a Reflection:

- 1) **Label each corner** of the shape (e.g. A, B, C, D).
- 2) From point A, **draw a line at right angles** to the mirror line.
- 3) **Carry on** the line to the **other side** of the mirror line.
- 4) **Mark** a point at **exactly the same distance** away from the mirror line as A. Call it A'.
- 5) **Repeat** for all the other points.
- 6) **Join up the points** (A', B' and C') to make the **reflection**.

96 Pie Charts

Pie Charts show things as Proportions

This is a **pie chart**. It shows how Bertie Entwhistle spends his time at work.

The **size of each colour** tells you how much of his time he spends doing different things. Each of the coloured bits is a **"sector"**.

To read a pie chart you have to judge the **fraction** or **percentage** that a colour takes up.

In any pie chart the **fractions must all add up to 1**, and the **percentages to 100%**.

EXAMPLE: How much of his work time does Bertie spend **hammering mangoes**?

ANSWER: The **green** bit takes up **half** of the pie chart, so Bertie spends **half** of his time hammering mangoes.

This doesn't actually tell you **how long** Bertie spends hammering mangoes — only the **proportion** of his time. To work out the **actual** time, you would have to know **how long** Bertie goes to work for.

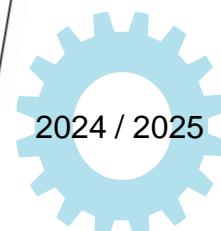
If he "worked" for **8 hours**, then he would spend $8 \times \frac{1}{2} = 4$ hours hammering mangoes.

I prefer an apple pie myself...

Look again at the pie chart at the top of the page, and use it to answer these:

- 1) **What fraction** of his work time does Bertie spend **nostril spotting**?
- 2) **What percentage** of his work time does he spend **sleeping**?

SECTION FIVE — HANDLING DATA



Mathematics Revision



- Do not let your child just read and claim it as revision.
- Maths revision should include completing LOTS of questions.
- Practice / Practice / Practice
- Any Questions



Past Papers

- Practice questions;



Diagram NOT accurately drawn

12

ABC, DEF and PORS are parallel lines.
BEO is a straight line.
Angle ABE = 60°
Angle OER = 80°
Work out the size of the angle marked x.
Give reasons for each stage of your working.

Write your name here

Surname _____ Other names _____

Centre Number _____ Candidate Number _____

Pearson Edexcel GCSE

Mathematics A

Paper 1 (Non-Calculator)

Foundation Tier

Thursday 4 June 2015 – Morning
Time: 1 hour 45 minutes

Paper Reference
1MA0/1F

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser. Tracing paper may be used.

Total Marks

Instructions

- Use black ink or ball-point pen.
- Fill in the boxes at the top of this page with your name, centre number and candidate number.
- Answer all questions.
- Answer the questions in the spaces provided – there may be more space than you need.
- Calculators must not be used.

Information

- The total mark for this paper is 100
- The marks for each question are shown in brackets – use this as a guide as to how much time to spend on each question.
- Questions labelled with an asterisk (*) are ones where the quality of your written communication will be assessed.

Advice

Read each question carefully before you start to answer it.
Keep an eye on the time.
Answer every question.
Check your answers if you have time at the end.

24

The diagram shows part of the curve with equation $y = 8x$.
The coordinates of the maximum point of the curve are $(3, 5)$.

(a) Write down the coordinates of the minimum point of the curve with equation $y = 8x$.
 $(i) y = 8x + 3$
 $(ii) y = 8x^2$
 $(iii) y = 8x^3$

(b) The curve with equation $y = 8x$ is transformed to give the curve with equation $y = 8x^3 - 4$.
Describe the transformation.

(Total for Question 24 is 1 mark)

23

The diagram shows a container for grain.

Diagram NOT accurately drawn

The container is a cylinder on top of a cone.
The cylinder has a radius of 3 m and a height of h m.
The cone has a base radius of 3 m and a vertical height of 4 m.
The container is empty.
The container is then filled.

24

The scatter graph shows information about the age and the price of each of 12 cars of the same model.

Price (£)

Age (years)

The relationship between the age of a car and its price.

25

The diagram shows a cylinder on top of a cone.

Diagram NOT accurately drawn

The cylinder has a radius of 3 m and a height of h m.
The cone has a base radius of 3 m and a vertical height of 4 m.
The container is empty.
The container is then filled.

26

2024 / 2025

Past Papers

- Read the question;
- Underline key words and phrases;
- Stick to the question;

Diagram NOT accurately drawn

12

ABC, DEF and PQRS are parallel lines.
BEQ is a straight line.
Angle ABE = 60°
Angle OER = 80°

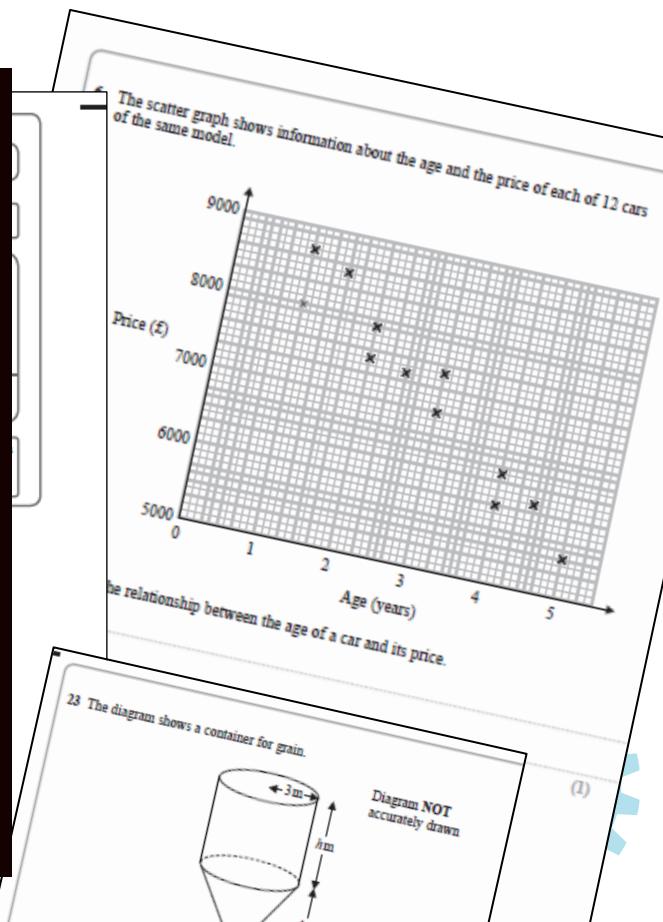
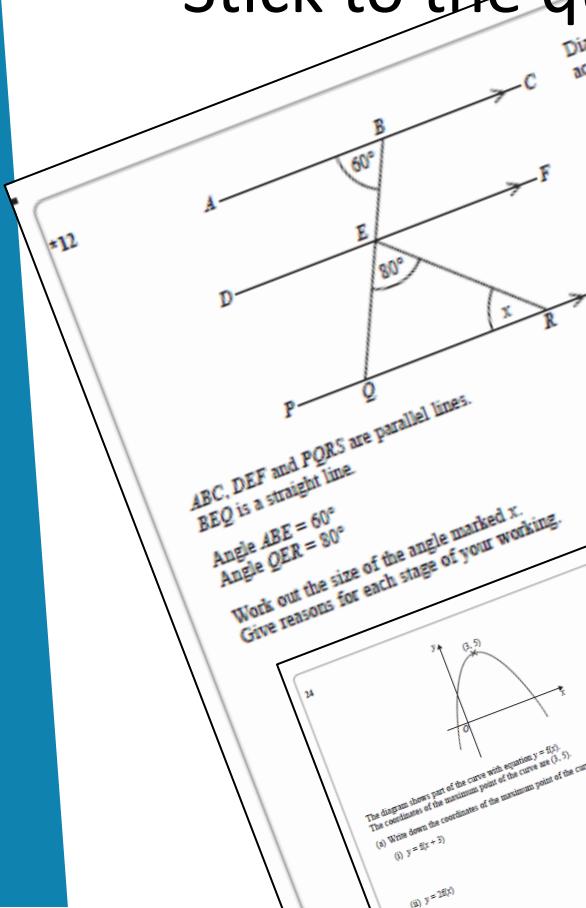
Work out the size of the angle marked x.
Give reasons for each stage of your working.

24

The diagram shows part of the curve with equation $y = 8x$.
The coordinates of the maximum point of the curve are $(3, 5)$.

(a) Write down the coordinates of the maximum point of the curve.
(i) $y = 8(x + 3)$

(ii) $y = 25x$

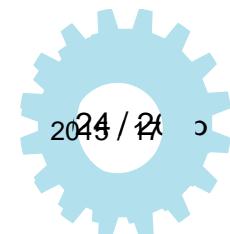


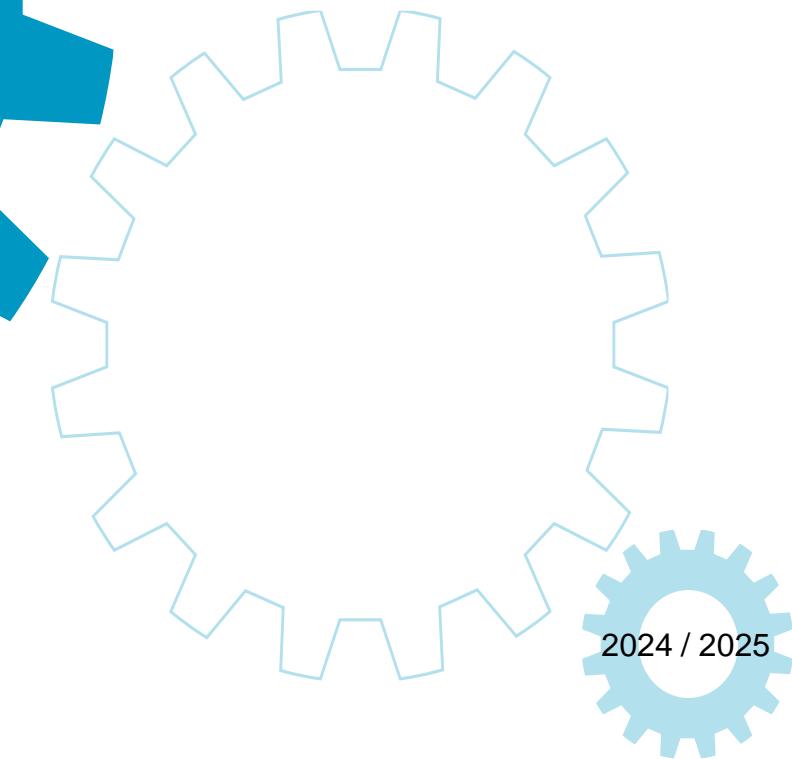


We all make mistakes!



It's what we learn from them !





2024 / 2025

Revision Timetable

- Spend time producing a revision timetable;



12	13	14	15	16	17	18
9:00am - 10:00am Economics [New]	11:00am - 12:00pm Psychology A [New]	9:00am - 10:00am test paper 2 [New]	9:00am - 10:00am Accounting paper 1 [New]	11:00am - 12:00pm Economics [New]	11:00am - 12:00pm English [New]	9:00am - 10:00am Psychology A [New]
11:00am - 12:00pm Psychology A [New]	1:00pm - 2:00pm Economics [New]	1:00pm - 2:00pm Psychology A [New]	11:00am - 12:00pm Accounting paper 1 [New]	5:00pm - 6:00pm Psychology A [New]	3:00pm - 4:00pm Economics [New]	2:00pm - 3:00pm English [New]
1:00pm - 2:00pm English [New]	3:00pm - 4:00pm English [New]	3:00pm - 4:00pm English [New]	3:00pm - 4:00pm Accounting paper 1 [New]	3:00pm - 4:00pm Psychology A [New]		4:00pm - 5:00pm test paper 2 [New]
3:00pm - 4:00pm	5:00pm - 6:00pm	5:00pm - 6:00pm				

- Give yourself breaks;
- Practice timed examination questions;

ARE YOU READY?

How you can Help!



- In Mathematics, students are set **home learning** every **week**. This needs to be **completed regularly** and **on time**;
- It is expected that you will complete **4 home learning tasks** each half-term including **2 examination revision tasks**;
- The Mathematics department runs a **Maths Cafe** every day during lunchtimes in room 162 to **support students** with, Home Learning, mastering difficult key examination concepts, revision techniques and past papers;
- The Mathematics department runs a **revision class** after college on a Tuesday 3:30 pm to 4:30 pm in all Mathematics rooms;



What / Where does Maths get you?



- A **grade 5** or above opens up doors:
 - Needed for most level 3 courses
 - A lot of employers won't look at your application form without it.
 - A **grade 5** (or above) in English and Mathematics is a mandatory requirement for entry to Kennicott and most other colleges.
- A good grade in Maths will add an average of **£2500 to your wages.**





YOU CAN HAVE
RESULTS

- OR -

EXCUSES
NOT BOTH.

