ROOKS HEATH SCHOOL
Strive to be your best

MATHS NEWSLETTER. ISSUE 1. TERM 2.

Happy New Year 2023!

It has certainly been a busy period in the Maths Department. All year groups have had their first end of term exam for this academic year and have been given feedback.

Year 11 also sat their first mock exam. As a reminder they will be doing another mock exam the last week of February. In addition to the Thursday after school Master Class, for year 11 we are shortly going to start a lunch break Maths Master Class session for selected students.

We have also started a Year 11 Further Maths class every Tuesday 3:15pm to 4pm.

Please do contact me if you have any questions. I can be emailed at ntakhar@rooksheath.harrow.sch.uk , or please email the relevant class teacher.

Many thanks. Mrs N Takhar (Head of Mathematics)

Assessment Dates

Year 7: W/C 27th of March
Year 8: W/C 27th of March
Year 9: W/C 20th of March
Year 10: W/C 20th of March
Year 11: 2nd Mock season
Paper 1 (non-calculator) Monday Feb 20th afternoon
Paper 2 (calculator) Tuesday Feb 21st afternoon
Year 12: W/C 20th of March
Year 13: W/C 20th of March

LOOK OUT FOR INFORMATION IN 'SATCHEL ONE', 2 WEEKS BEFORE THE ASSESSMNET

Homework

Homework is set once a week

Once a week, it will be a written piece of homework - it can be a worksheet or an exercise from the homework books. The following week, an online homework will be set on either MyMaths or Kerboodle.

Teachers will set the homework as an assignment on Teams, and you should also get a notification via Satchel One.

Support

What	When	Where
Maths Homework Club	Every Thursday 3:10pm – 4:10pm	D2
KS3 Maths Champion Club (years 7, 8 and 9)	Every Thursday 3:10pm – 4:10pm	D1
KS4 Maths Master Class (Years 10 and 11)	Every Thursday 3:10pm – 4:10pm	D3/MG1
KS4 Maths Further Maths class (year 11)	Every Tuesday 3:15pm – 4:00pm	EF6
KS5 Maths Club (Years 12 and 13)	Every Thursday 3:10pm – 4:10pm	EF3
UKMT Maths Challenge Club And STEM Club	Every Thursday 3:10pm – 4:10pm	EG7

Learning this term?

As a department we follow the schemes of learning from White Rose Maths and Kerboodle.

The Knowledge Organiser for each topic can be found in Teams/SharePoint in Year Group folders.

GCSE Maths exam board - **Edexcel**
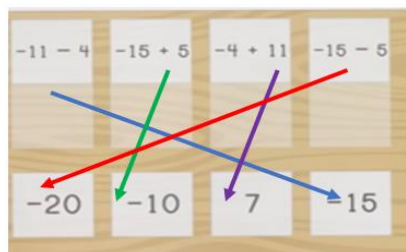
Level 2 Further Maths exam board - **AQA**

AS/A' level Maths exam board - **Edexcel**

This term the Year Groups are studying the following:

Year 7	• Place Value and Proportion • Applications of numbers
Year 8	• Algebraic Thinking • Developing numbers
Year 9	• Handling data • Fractions, Decimals and percentages • Formulae and Functions
Year 10	• Circles and Construction • Ratio and Proportion
Year 11	• Calculations 2 • Graphs 2 • Pythagoras and Trigonometry • Combined events

Year 12	• Vectors • Differentiation • Integration • Exponentials and Logarithms • Representation of data
Year 13	• Friction • Projectile motion • Application of forces • Further Kinematics • Regression, correlation, and Hypothesis tests • Conditional probability • Normal distribution

Exam Tip

Avoid Making silly mistakes by being focussed and knowing your basics well.

$-11 - 4$	$-15 + 5$	$-4 + 11$	$-15 - 5$
-20	-10	7	-15

Dividing Fractions

$$\frac{1}{3} \div \frac{3}{5}$$

Reciprocal: $\frac{3}{5} \times \frac{5}{3}$

Rewrite: $\frac{1}{3} \cdot \frac{5}{3}$

Multiply: $\frac{1 \cdot 5}{3 \cdot 3} = \frac{5}{}$

Simplify: $b^3 \times b^8$

Apply Powers Rule: $a^m \times a^n = a^{m+n}$

$= b^3 \times b^8$

$= b^{3+8}$

$= b^{11}$ ✓

Symbol of the term

$$\equiv$$

Symbol Name in Maths: Triple Bar
Maths symbol meaning: Identical
Equal sign with three lines, i.e. ≡ means **identical to**. This is similar to, but not exactly the same as, equals, i.e. =The difference between them is that ≡ is for used for equivalence in abstract context whereas = sign is used when we want to say "equal to" For example
$2x + 3x \equiv 5x$
$2 + 3 = 5$

Word of the term

Expression

In maths, an expression is a combination of numbers, variables, functions (such as addition, subtraction, multiplication or division etc.). Expressions can be thought of as similar to phrases. In language, a phrase on its own may include an action, but it doesn't make a complete sentence. Here are some examples of expressions **2x, n+7, m-3.**

These expressions express a mathematical operation, but they don't tell us the outcome of the operation or what the operation is equal to.

Career in Maths

Operational research

Operational research is a profession where initiative, creativity and enthusiasm are every bit as important as technical ability. People employed in OR are generally graduates with numerical degrees and many have followed courses with a significant mathematical, statistical or computing content opportunities.
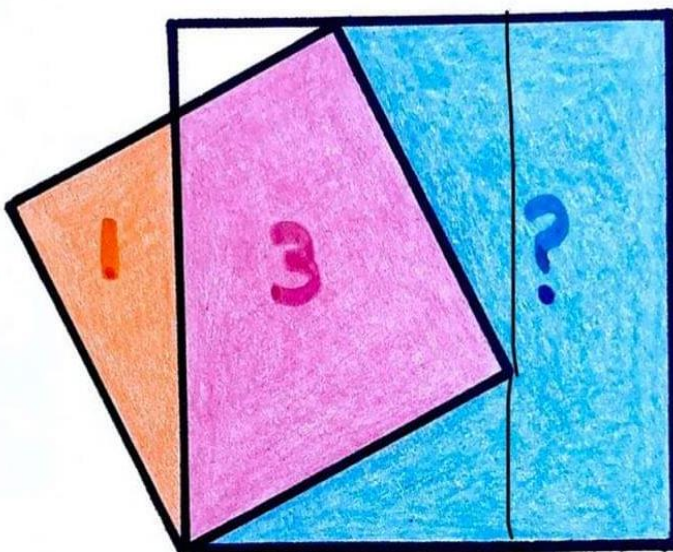**Who employs OR analysts?**
The government
Industry
Academia

Maths Puzzle of the term

Area of pink space is 3

Area of orange is 1.

Both shapes are squares

Calculate the area of blue shaded space.

> "*Success* is not final, failure is not fatal: it is the **courage** to continue that counts."
>
> — *Winston Churchill*

Meet the Maths Team

Mrs N. Takhar (Head of Maths)
Mrs S. Subra
Mrs A. Syed
Mrs S. Sritharan
Ms H. Capper
Mrs A. Farzady
Mr E. Bissoon
Mrs N. Khan
Ms A. Murray
Mr F. Hady
Ms V. Caullet