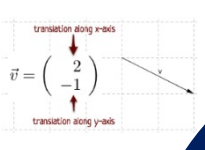


# Mathematics Learning Journey

YEAR 11



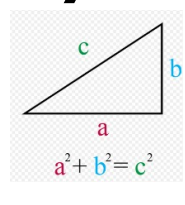
Can you solve problems involving vectors?

Can you find & use three figure bearings?

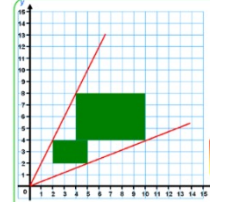
Can you use inverse proportion?

Can you work out probabilities from a tree diagram?

Do you know what Pythagoras Theorem is?

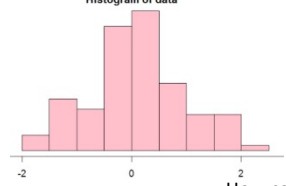


How can write a ratio in the form 1:n?



Can you find the centre of enlargement?

Can you draw & interpret histograms?

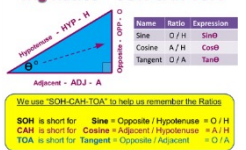


Can you use the link between scale factors for length, area and volume to solve problems?

Can you solve problems involving linear, quadratic & cubic graphs?

$32^{\frac{1}{2}}$   
 $4^{\frac{1}{2}}$

What are the three trigonometric ratios?



Can you convert a recurring decimal to a fraction?

Can you interpolate or extrapolate values?

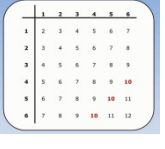
Can you draw & interpret distance-time graphs?



How can you estimate answers?

$21.5 \leq L < 22.5$

What is an error interval?



Can you design a two way table?

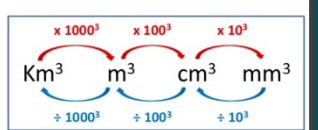
Can you find the product of primes?

$60 = 2 \times 2 \times 3 \times 5$   
 $60 = 2^2 \times 3 \times 5$

Can you interpret time series graphs?

$2x + 4 \geq 24$

Can you calculate an estimate of the mean of grouped data?



Can you draw a sample space diagram?

$C = \pi \times d$

What is the area of a circle?

$A = \pi \times r^2$

How do you know shapes are similar?

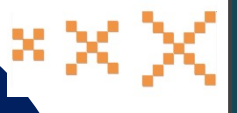
What does the c represent in  $y=mx+c$ ?

$y = mx + c$

What is simple interest?

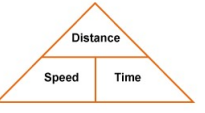
What is a sensible sample size?

Can you generate sequences from a practical context?

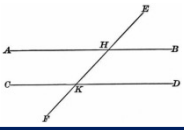


What is the circumference of a circle?

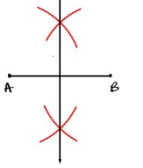
What are compound measures?



Do you understand the relationship between parallel lines?

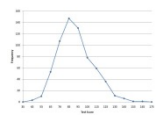


What does bisect mean?



What does LCM mean?

What does x represent in  $y=mx+c$ ?



What is a frequency polygon?

How can you recognise a quadratic sequence?

7, 9, 13, 19, 27

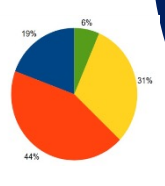
What are the index laws for multiplication and division of integer powers?

What is a negative integer multiplied by a negative integer?

YEAR 9

$F = ma$

Can you substitute into formulae



What is the sum of the angles in a triangle?

What are constructions?



What does HCF mean?

What is compound interest?

$B = p(1 + r)^n$

What does linear mean?



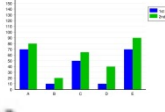
Can you calculate the volume of a cube?

Can you recognise powers of 2, 3, 4 & 5?

- Brackets
- Indices
- Division
- Multiplication
- Addition
- Subtraction

What is BIDMAS?

Can you construct pie charts?



Can you interpret bar charts?

What does mutually exclusive mean?

Can you calculate percentage change?

Do you understand what a common denominator is?

Can you calculate the volume of cuboids?



Do you know what anything to the power zero is??

YEAR 8

(0,7)

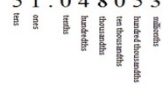
$9x + 12$

Can you solve equations?

$x - 8 = 15$

Can you reduce a ratio to its simplest form?

Can you understand place value for decimals?

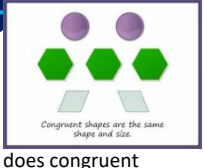


Can you solve problems involving percentage decrease?

Can you solve problems involving area?



What does congruent mean?



Can you simplify expressions?

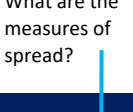
How can you generate sequences

1, 3, 5, 7, ...

How do you add and subtract fractions?



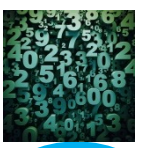
What are the measures of spread?



What are reciprocals?



Can you use conventions for labelling sides and angles of a triangle?



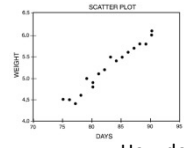
YEAR 7

How can you tell if something shows bias?



How do you know something is fair?

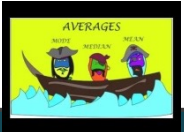
How do you convert between fractions, decimals and percentages?



How do you analyse bivariate data?



What are the measures of central tendency?



What are prime numbers?



welcome

'The highest form of pure thought is in mathematics.' Plato