

Fractions, decimals, percentages and ratio

Numerator- top number of a fraction, telling us how many parts out of the total

Denominator- bottom number of a fraction which tells us the number of equal parts something has been divided into.

Improper fraction- also known as top heavy. The numerator is more than the denominator.

Equivalent- the same as

Percentage- out of a hundred (%)

Quotient- the number of times one number can be divided into another e.g. 10 divided by 5 = 2 so the quotient is 2.

Properties of number and number sequences

Integer- a whole number, including 0, positive and negative numbers.

Consecutive- something that follows on after another e.g. 4, 5, 6, 7 are consecutive numbers and 32, 34, 36 are consecutive even numbers.

Formula- a quick way of writing down a rule e.g. the formula for finding the area of a rectangle is $a=l \times b$. a = area of rectangle, l =length, b =breadth (width).

Factor- a whole number that will divide exactly into another whole number e.g. 3 is a factor of 12.

Prime number- whole numbers which only divide by itself and 1 e.g. 2, 3, 5, 7, 11, 13, 17, 19.

Prime factor- a factor which is also a prime number e.g. 3 is a prime factor of 21. The prime factors of 20 are 2, 2 and 5 ($2 \times 2 \times 5 = 20$)

Square number

Calculations

Inverse- opposite. The inverse of addition is subtraction and the inverse of multiplication is division.

Recurring- repeating. A recurring decimal can never be worked out exactly and has a repeating pattern of numbers e.g. $1/3$ is 0.333333 (forever) but we write 0.3.

Handling data

Statistics- a collection of facts and figures.

Distribution- the spread of information.

Pictogram- a graph which uses pictures or symbols to show information.

Frequency table- shows how often something happens or how common it is.

Random- something chosen by chance e.g. picking a marble out of a bag without looking.

Handling data (continued)

Average- mean, median or mode of data.

Mean- the average amount found by adding the numbers in a list and dividing by the amount of numbers. E.g. find the mean of 4, 1, 3, 2, 10 so add $4+1+3+2+10=20$ then 20 divided by 5 = 4. The mean is 4.

Median- the middle number in an ordered set (a type of average) e.g. find the median of 8, 5, 5, 6, 10 so order and find the middle: 5, 5, 6, 8, 10. The median is 6.

Mode- a number that occurs **most** often (a type of average). E.g. find the mode of 9, 2, 4, 5, 2, 3, 9, 1, 6 so the modes are 2 and 9.

Range- the difference between the highest and lowest number e.g. the range of 3, 8, 6, 2, 6, 15, 12 is 13 because the highest number (15) take away the lowest (2) is 13.

Measures, shape and space

Metric- we measure things today using metric units, they are based on the metre for length, litre for capacity and gram for mass. You need to know how many g in kg, cm in m, ml in L etc.

Imperial- used to be used in Britain instead of metric system but we still use some e.g. inches, miles, stone, pints.

Approximately- not an exact answer.

Perimeter- the distance all the way round the edge of something.

Circumference- the distance all the way round a circle.

Radius- the distance from the centre of a circle to an edge.

Parallel lines- lines that are the same distance apart from each other all the way along their length (think of train tracks).

Measures, shape and space (continued)

Capacity- the amount something will hold e.g the amount of water in a bottle (measured in ml, L, pts)

Centilitre (cl)- a measure of capacity (100cl = 1L)

Concentric- these circles are concentric, they have the same centre.

Congruent- exactly the same shape and size as one another.

Intersecting- lines that cross each other.

Vertex (plural is vertices)- a corner or tip.

Concave- curving inwards, like a hollow.

Convex-the opposite of concave, it curves like the outside of a dome.

Translation (in maths)-moving a shape in a certain way: up, down, left, right or diagonally but the shape must be congruent.

Interrogate- look at something carefully and ask questions of it.

Identical- the same as

