

Y6 Maths - What can a successful learner do?

Number Place Value

I can work with numbers up to 10 000 000 and know what each digit represents.

I can round a whole number as requested - for example to the nearest 10 or 1000 or 100000.

I understand and use negative numbers in my work, for example - working out how much is between -7 and +8.

I can solve number and practical problems that involve large numbers, rounding and negative numbers.

Multiplication Division

I can multiply 4 digit numbers by a two-digit number (for example 4307×34) using the written method of long multiplication.

I can divide 4 digit numbers by a two-digit number using the written method of long division - and tell you the remainder.

I can choose to divide 4 digit numbers by a two-digit number using the written method of short division if this is possible.

I can multiply, divide, add and subtract large numbers in my head.

I identify common factors, common multiples and prime numbers.

I know that addition, subtraction, multiplication and division should be carried out in a specific order when looking at problems.

I can solve addition and subtraction multi-step problems, deciding where to add or subtract.

I can solve problems involving addition, subtraction, multiplication and division.

I always estimate my answer before I begin calculating - this helps me to check at the end to make sure I am correct.

Fractions

I can use common factors to simplify fractions and use common multiples to express fractions in the same denomination.

I can compare and order fractions, including fractions greater than 1.

I add and subtract fractions with different denominators and mixed numbers.

I can multiply fractions such as $1/4 \times 1/2 = 1/8$.

I know how to divide proper fractions by whole numbers [for example, $1/3 \div 2 = 1/6$].

I can change a fraction into a decimal - for example, I can change $3/8$ to 0.375 by dividing 1 by 8 and multiplying by 3.

I can multiply and divide numbers by 10, 100 and 1000 and know what each digit means up to three decimal places.

I can multiply numbers such as 1.45 by a one-digit number - for example 1.45×7 .

I use written division methods in cases where the answer has up to two decimal places.

I can solve problems which include rounding to a required accuracy such as the nearest 10, 100 or 10000.

I know the decimal value, percentage and fraction of a range of values - such as 0.5, 50 per cent and $1/2$.

Ratio

I can solve problems about relative sizes (ratio).

I can find the percentage of an amount - such as finding 15 per cent of 360.

I can solve similar shape problems.

I can solve problems about unequal sharing - such as 'I need four eggs and for every egg I need three spoonfuls of flour. How much flour do I need?'

Algebra

I know how to use simple formulae such as $n - 10 = 2$.

I can create a sequence of numbers that follow a rule.

I can use a letter (such as n or x) to show a missing number - such as $10 - x = 5$.

I can find pairs of numbers that satisfy an equation with two unknowns.

I can list possible answers to missing numbers such as listing the possible answers of a and b in $a + 6 = b - 10$.

Measurement

I solve problems about different units of measure with three decimal places.

I can convert measurements of length, weight, volume and time up to three decimal places in length (for example $0.345\text{kg} = 345\text{g}$).

I can convert between miles and kilometres.

I know that even though shapes may have the same area, the perimeter may be

different - or a shapes with the same perimeter may have different areas.

I can use a formula for area and volume of shapes.

I can calculate the area of parallelograms and triangles.

I can work with the volume of cubes and cuboids using cubic centimetres (cm³) and cubic metres (m³), and other units too such as mm³ and km³.

Shape

I accurately draw 2-D shapes using given dimensions and angles.

I can recognise, describe and build 3-D shapes, including making nets.

I can classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.

I know the parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.

I can work with angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.

Position

I can use the four quadrants in a coordinate grid.

I can draw and translate shapes using coordinates or reflect a shape on the grid.

Statistics

I can use and construct pie charts and line graphs and use these to solve problems.

I can calculate the mean as an average.