Maths, Year 5, Autumn 1

What I will know by the end of the Autumn 2 term

Arithmetic 1	I can estimate calculations by rounding before calculating. I can calculate two or three 4-digit whole numbers vertically, with more than one tricky column. I can add, subtract, and divide mentally vulgar fractions with the same denominator. I can multiply and divide vulgar fractions and mixed numbers by a whole number.
Geometry	I can name images of objects that are points, lines or polygons in a symmetrical shape. I know the line of symmetry is a perpendicular bisector in a symmetrical shape. I can investigate properties of shape and symmetry.
Data & Measure	I can solve measure Word Problems (including Type 1 and 2/ Grouping and Sharing). I can solve measure Word Problems involving percentage increase and decrease. I can find the volume of a cube and I know that a triangular prism's volume is ½ of a cube's volume.
Arithmetic 2	I can complete missing number grids and use information in grids to solve Word Problems. I can continue a square number sequence and solve problems involving square numbers.
Reasoning	I can write am/pm times using 24 hour clock notation I can calculate duration using 24 hour clock. Consolidation of times tables and related division facts.
Additional Coverage	I know useful time conversation facts e.g. two weeks is a fortnight. I can read and write Roman Numerals to write the date, birthdays etc.

Useful Links

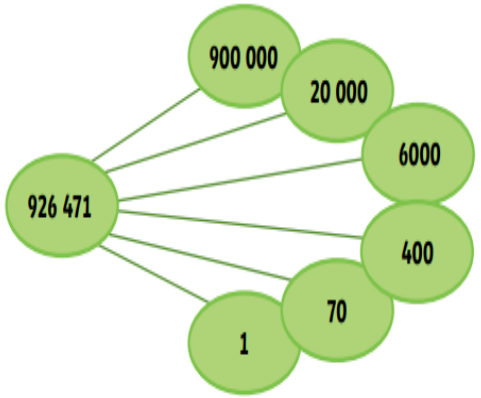
https://www.mymaths.co.uk/
https://play.ttrockstars.com/auth/school/student/64764
https://www.bbc.co.uk/teach/supermovers/ks2-maths-collection/z7frpg8
https://home.oxfordowl.co.uk/maths/primary-multiplication-division/help-with-times-tables/

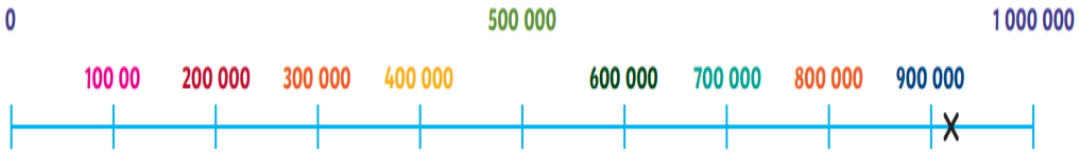
Numbers to One Million

926 471

Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
9	2	6	4	7	1

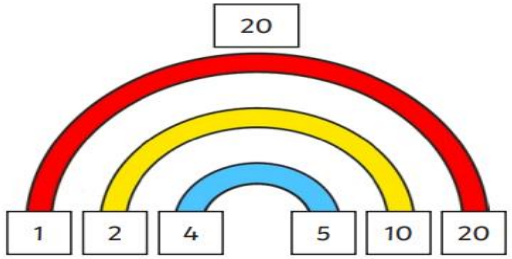
nine hundred and twenty-six thousand, four hundred and seventy-one



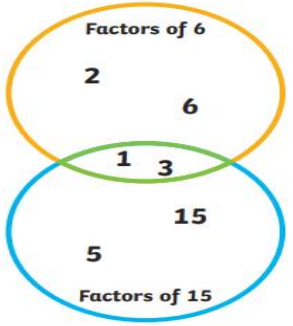


Factors

A factor is a number that divides into another number exactly, without leaving a remainder.



A common factor is a factor of 2 or more numbers.



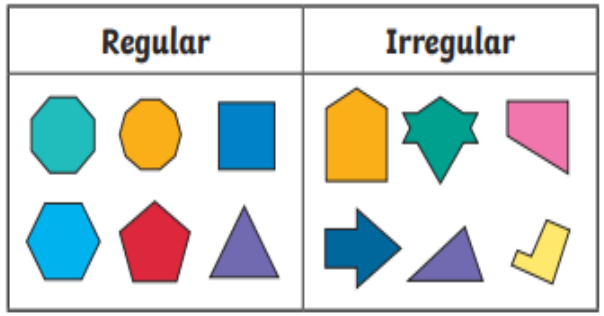
The factors of 20 are 1, 2, 4, 5, 10 and 20.

The factor pairs are:
1 and 20
2 and 10
4 and 5

Useful Vocabulary

Decimal point/ place	A decimal point is a point, or dot, used to separate the whole part of a number from the fractional part.
Numerator	The top number on a fraction.
Denominator	The bottom number on a fraction.
Factor	Factors are numbers that divide exactly into another number. For example, the factors of 8 are: 1, 2, 4, 8. Factors can be shown in pairs.
Proper factor	All factors (see above) of a number **other than** 1 and the number itself.
Polygon	A polygon is a flat two-dimensional shape with straight sides that are fully closed. The sides must be straight, not curved. However, polygons can have any number of sides.

Regular and Irregular Polygons



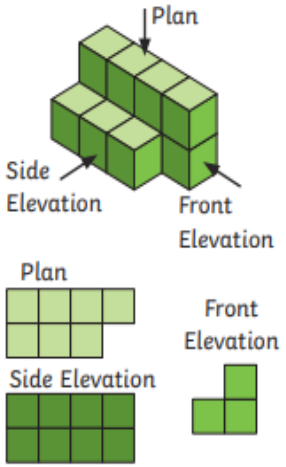
A polygon is any two-dimensional shape formed with straight lines.

In a regular polygon, all the sides and angles are equal.

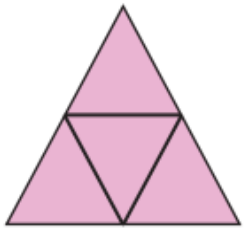
In an irregular polygon, the sides and angles are not equal.

Representations

Cube models can be drawn as 2D representations using different elevations.

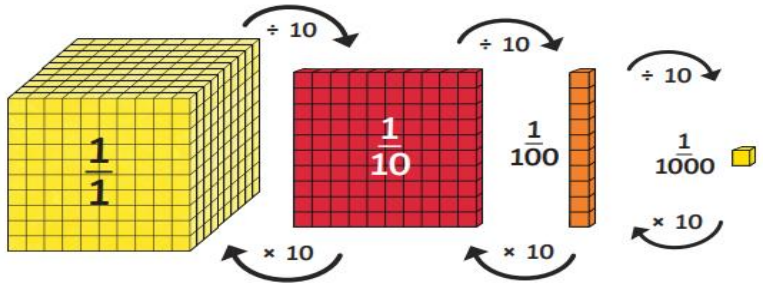


A shape net is a 2D drawing of an unfolded 3D shape. When you are drawing or reasoning about shape nets, think carefully about where the edges of the faces meet.



Shape net of a tetrahedron.

Fractions and decimals



Inverse Operations

Use the inverse to check:

53 476	
32 732	20 744

To check 53 476 – 32 732 = 20 744 use 32 732 + 20 744 = 53 476

Start with a number, subtract 409 and double. I end with 6264. To find the starting number use the inverse: halve, then add 409. Half of 6264 = 3132. 3132 + 409 = 3541. The starting number was 3541.

Rounding Decimals