

Maths, Year 5, Summer 1



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

Arithmetic 1	I can use a grid for long division with up to 3 digit by 1 digit whole numbers (including fractional remainders). I can use my knowledge of inverse and multiplication tables to solve division problems (all tables).
Geometry	I can draw a convex polygon. I can draw and mark the exterior angles for a convex polygon. I can show the sum of the exterior angles of a polygon is 360° .
Data & Measure	I can estimate the area of a shape in cm^2 I can calculate the perimeter and area of a compound shape. I can use ratio to convert metric units of measure as well as between metric and imperial units of measure.
Arithmetic 2	I can evaluate terms in an expression with brackets. I can evaluate products in an expression with brackets.
Reasoning	I can carryout investigations (NCETM Master Assessment).
Additional Coverage	I can mentally calculate areas of rectangles. I can recite the prime numbers up to 19. I can round numbers to the nearest 10, 100, 1000, 10000 and 100000.

Useful Links

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

Regular and Irregular Polygons

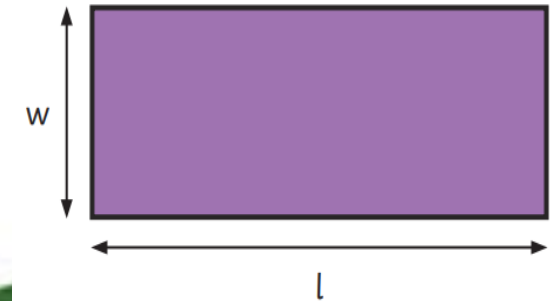
Regular	Irregular

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.

The area of a rectangle = length (l) \times width (w).



Measure Perimeter

Measure the perimeter of a rectangle:



Measure the length (l) and width (w).

Perimeter = $l + w + l + w$ or $(l + w) \times 2$

Measure the perimeter of regular shapes:



Measure the length (l) and count the number of sides (s) on the shape.

Perimeter = $l \times s$

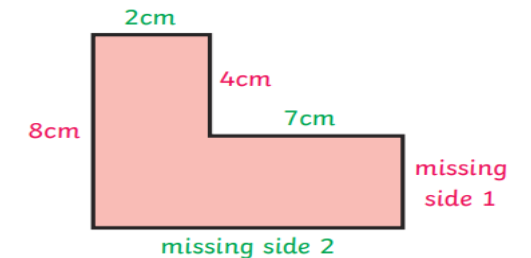
Measure the perimeter of irregular shapes:



Measure the length of each side and add them together.

Calculate Perimeter

Calculate the missing sides of this rectilinear shape to find the perimeter:



* This shape is not drawn to the dimensions specified.

Missing side 1 + 4cm = 8cm,
so missing side 1 = 4cm.

Missing side 2 = 2cm + 7cm = 9cm

Perimeter = sum of all sides =
2cm + 4cm + 7cm + 4cm + 9cm + 8cm = 34cm

Rounding

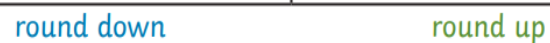
Rounding to the nearest 10

20	21	22	23	24	25	26	27	28	29	30
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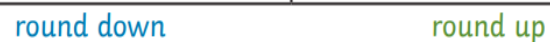
Rounding to the nearest 1000

2000	2499	2500	3000
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Rounding to the nearest 100 000

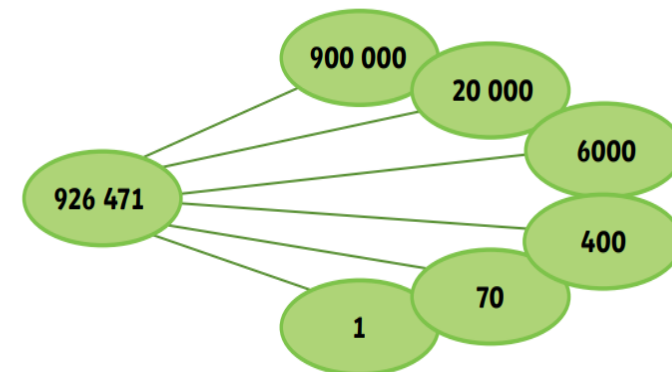
200 000	249 999	250 000	300 000
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926 471

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



Useful Vocabulary:

Concave	Having an outline or surface that curves inwards like the interior of a circle or sphere.
Convex	Having an outline or surface curved like the exterior of a circle or sphere.
Polygon	A flat, two-dimensional (2D) shape with straight sides that are fully closed.
Estimate	An approximate calculation or judgement of the value, number, quantity or extent of something.
Perimeter	The continuous line forming the boundary of a closed geometric figure.
Compound shape	A compound (or composite) shape is any shape that is made up of two or more geometric shapes.
Expression	A Maths Story with a minimum of two numbers and at least one mathematical operation.

Related Calculations

$$8 \times 9 = 72$$

$$80 \times 9 = 720$$

$$9 \times 8 = 72$$

$$90 \times 8 = 720$$

$$72 \div 9 = 8$$

$$720 \div 9 = 80$$

$$72 \div 8 = 9$$

$$720 \div 8 = 90$$

Prime Numbers

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20