## Measurement

Measure and calculate the perimeter and area of composite rectilinear shapes understanding $\mathrm{cm}^{2}$ and $\mathrm{m}^{2}$ as $\mathrm{cm} / \mathrm{m}$ squared
Calculate the perimeter of this rectilinear shape:

## Money

Solve problems involving converting money and calculating change
Bobby has saved £6.47 in his piggy bank. His brother, Sam, has saved 6 times as much.
How much more money does Sam have than Bobby?

## Time

Solve problems involving converting units of time, crossing from minutes to hours, involving days, weeks, months and years
Lizzie started a sponsored walk at 10:20 am and finished at 4:30 pm.
How long did she walk for?
Convert the following units of time:


## Ways to help your child

- Look at the TV guide, how long are two shows on for? If a film starts at 18:00 and finishes two and half hours later, what time will it be?
- Combine journey times e.g. bus (20 minutes) walking ( 45 minutes) - how long is that?


## Shape

Draw given angles and measure them in degrees

Use a protractor
to measure
these angles
Distinguish between regular and irregular polygons

What are the differences between these regular and irregular octagons?


## Statistics

Complete, read and interpret information in tables, including timetables


Read the graph and answer these questions:
What was the temperature at 3 pm ?
What do you think the temperature will be at midnight?
When was the sharpest rise in the temperature?

## Ways to help your child

- Look at BBC sports pages, read and analyse the data. What does the data tell you?


## Year 5 Fundamentals of Mathematics



## Before children leave Year 5 they should be able to...

## Counting

Count in powers of ten up to one million

$$
\text { One hundred }=10 \times 10=10^{2}
$$

One thousand $=10 \times 10 \times 10=10^{3}$
How would you write one million?
Count forwards and backwards with positive and negative whole numbers including through zero

| Continue the number sequence: |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| -165 |  |  |  |  |  |  |  |
| -115 |  |  |  |  | -65 | -15 | $\square$ |
| 95 |  |  |  |  |  |  |  |

## Place Value

Read, write, compare and order numbers up to one million (knowing value of each digit)


Read Roman numerals to 1000 (M) and recognise years written in Roman numerals

| What number <br> do these Roman <br> numerals <br> represent? | XXXIII $=\square$ |
| :--- | :--- |

## Ways to help your child

- Look out for Roman numeral on clocks and read the time.
- Read the Roman numeral dates on the end of BBC television programmes.
- Take the numbers on two buses, rearrange the digits to make the biggest and smallest number e.g. 242 and 56 becomes 65422.


## Addition and Subtraction

Add and subtract whole and decimal numbers of more than 4 digits with regrouping (using the column method)

Use formal written methods to complete:

$$
8000-4680=\quad 806050-314783=
$$

## Multiplication and Division

Identify factors and multiples, finding all factor pairs and common factors
Write two more factor pairs for 40:

$$
1 \times 40 \quad \square
$$



Write four common factors of 36 and 48:
$\square$
$\square$
Solve multiplication and division problems using factors, multiples, scaling, squares and cubes
Mr Sprout, the greengrocer, ordered a box of carrots to sell in his shop. The box contained $8^{3}$ carrots.
How many carrots did he order?
Know and use prime numbers, prime factors and composite numbers (with rapid recall of primes to 19)

Sort the numbers:


## Ways to help your child

- Practise recall of prime numbers.
- Give your child a number and challenge them to tell you the factor pairs.


## Fractions

Read, write and compare decimal numbers, fractions and percentages


Know the percentage and decimal equivalent of: $1 / 2,1 / 4,1 / 5,2 / 5,4 / 5$ and fractions with denominator of 10 or 25


Add and subtract proper fractions with denominators that are multiples and multiply mixed number fractions by whole numbers
Complete the $\frac{1}{3}+\frac{2}{6}=\frac{\square}{6}+\frac{2}{6}=\frac{\square}{6}$ fraction
calculations: $\frac{8}{9}-\frac{10}{18}=\frac{6}{9}-\frac{\square}{9}=\frac{\square}{9}$

## Position and Direction

Identify, describe and represent the position of a shape following a reflection or translation

Translate this triangle 3 units left and 6 units up. Draw the new triangle location on the grid.


