

Maths Week 9

Message

Hi Year 6!

This week's maths activities are all to do with *data* and *statistics*. Please do as much as you can. Use the teaching videos to help if you need extra support and have a go at using the links to help practise your skills.

You can do all of these activities without a printer.

Please make sure that you are practising your times tables every day.

If you finish everything this week, why not go back and look at previous remote learning and test your knowledge! Can you still work out percentages? How fast are you at your times tables? Look back and see what you can do.

Good luck! We miss you!

Miss Edge, Mr Grimadell, Miss Henry and Mr Skrein.

Teaching

This week, we will be looking at interpreting line graphs and bar charts. These two different types of charts are used for different types of data. We will also look at finding the mean average as a way to discuss a set of data.

Interpreting line graphs

Line graphs are a way to show continuous data, often relating to time. Line graphs can show how long journeys take, how many people are doing an activity, how something changes over time and a range of other things. It is important to pay special attention to the scale of the axes (x axis - horizontal and y axis - vertical) when reading a line graph.

Interpreting pie charts

Pie charts are usually used to compare data within a set, such as children in a class. They can show a number of items or percentages. Interpreting pie charts is a good opportunity to revisit your work on percentages.

Finding the mean average

Finding the mean average is a way to find out what the average value of a set of data is. Can you think of any real life applications for the mean average?

To find the mean, you need to add together all of the values and then divide by the number of entries.
Eg 4, 5, 6, 5, 6, 5, 6, 5, 5, 5 = $52 \div 10 = \text{mean } 5.2$

Website Links

Here are some useful teaching links:

Look in the remote learning folder for a PowerPoint to practise reading and interpreting charts and graphs.

[Here's a reminder about percentages](#)

Here are some websites where you can practise your skills:

[A rather silly Dick and Dom game](#)

[A game to practise finding the average](#)

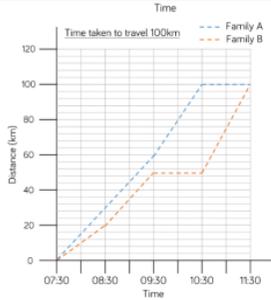
<https://www.mymaths.co.uk/> - look in the statistics section for some line graphs and bar charts.

<https://app.mymaths.co.uk/6007-homework/line-graphs>

Keep practising your multiplication and division facts!

<https://play.trockstars.com/auth/school/student>

Have a go at the line graphs:



Two families were travelling to Bridlington for their holidays. They set off at the same time but arrived at different times.
 What time did family A arrive?
 How many km had each family travelled at 08:45?
 Which family stopped midway through their journey?
 How much further had they left to travel?

This table shows the distance a lorry travelled during the day.

Time	Distance in miles
7.00 a.m.	10
8.00 a.m.	28
9.00 a.m.	42
10.00 a.m.	58
11.00 a.m.	70
12.00 a.m.	95
1.00 p.m.	95
2.00 p.m.	118

Create a line graph to represent the information, where the divisions along the x-axis are every two hours. Create a second line graph where the divisions along the x-axis are every hour. Compare your graphs. Which graph is more accurate? Would a graph with divisions at each half hour be even more accurate?

Have a look at the weather forecast for any day this week. Look at the predicted temperatures for each hour of the day. Can you make a line graph for the temperature for one day? What scale will you use? How will you title the axes?

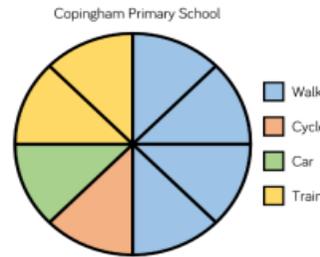
Once you have created your line graph, do the same for another day (try to pick a day with a different forecast). Compare your line graphs and see if you can set your own questions. Here are some examples:

*Which day had the highest temperature?
 Which day had the largest difference in temperature throughout the day?*

Pie Charts!

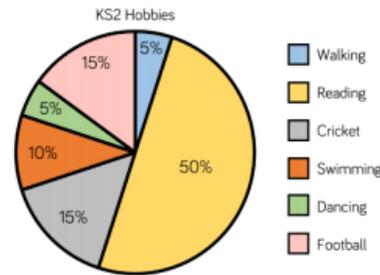
There are 600 pupils at Coppingham Primary school. Work out how many pupils travel to school by:

- Train
- Car
- Cycling
- Walking



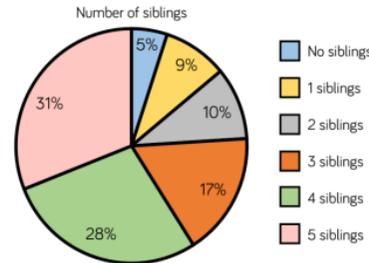
There are 200 pupils in Key Stage 2 who chose their favourite hobbies.

How many pupils chose each hobby?

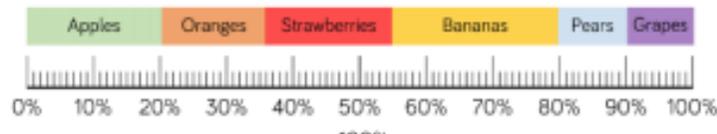


15 people in this survey have no siblings. Use this information to work out how many people took part in the survey altogether. Now work out how many people each segment of the pie chart is worth.

Can you represent the information in a table?



Construct a pie chart using the information in this bar model.



Mean average

Calculate the mean number of crayons.

Crayon colour	Amount
Blue	14
Green	11
Red	10
Yellow	9

Hassan is the top batsman for the cricket team.

His scores over the year are:

134, 60, 17, 63, 38, 84, 11

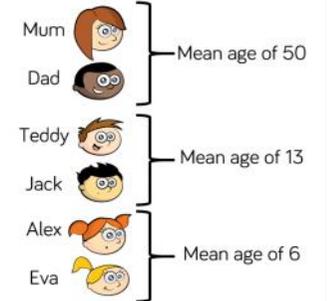
Calculate the mean number of runs Hassan scored.

Work out the age of each member of the family if:

Mum is 48 years old.

Teddy is 4 years older than Jack and 7 years older than Alex.

Calculate the mean age of the whole family.



Three football teams each play 10 matches over a season. The mean number of goals scored by each team was 2. How many goals might the teams have scored in each match?

How many solutions can you find?

Games and Investigations

Have a go at this football results investigation that uses your knowledge of averages:

<https://nrich.maths.org/4937>