

Maths- 13.7.20

Here are your maths tasks for this week- please use the book provided to complete the tasks ☺ We normally do maths Monday-Thursday, with Friday being our day for Mathletics and Times table rockstars to consolidate other areas of learning. Please see the Times table sheet for suggested activities. I've attached an arithmetic paper for Friday to complete this week too ☺

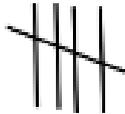
Monday

This week, we will be looking at reading and creating graphs including bar and time graphs. Today, we will be looking at collecting data and presenting it into a graph. Get or create a dice using the template in this week's home resources. I want you to roll the dice 30 times and mark on a tally chart how many of each number you roll- see below for an example.

Tally Mark Roll
Roll the dice and then put a tally mark. When you are finished, write the number of tally marks.

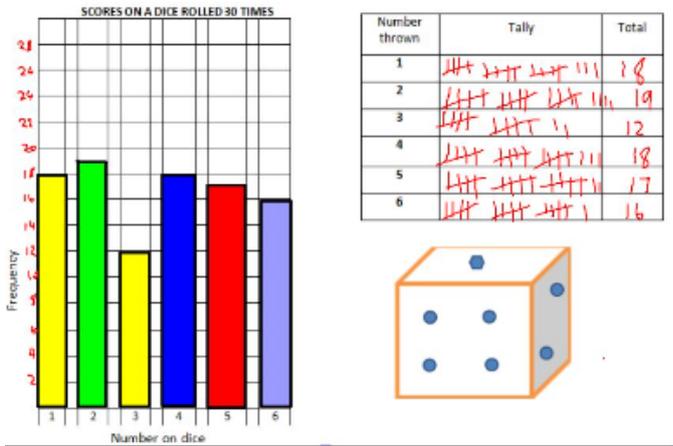
| Dice | Tally Marks | Total |
|------|-------------|-------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Remember- when you are doing a tally a group of '5' looks like a 'garden gate' as below.



Task

Next, using this information, I would like you to create a bar chart. Remember that bar charts should have the tally numbers up the side (vertical line) and the number on the dice along the bottom line (horizontal). You will need to leave a space between each bar so that we can see the difference in the numbers. Use the squared paper provided in home learning. See the example below:



- Then, answer these questions:
1. Which was the most popular? How do you know?
 2. Which was the least popular? How do you know?
 3. What was the difference between the most popular and least popular?
 4. How many more times did you roll a 4 compared to a 2? Or vice versa?

Challenge:

Here is some information about the number of tickets sold for a concert.

| Day | Number of tickets sold |
|-----------|------------------------|
| Monday | 55 |
| Tuesday | 30 |
| Wednesday | 45 |
| Thursday | 75 |
| Friday | 85 |

Jamie starts to create a bar chart to represent the number of concert tickets sold during the week.

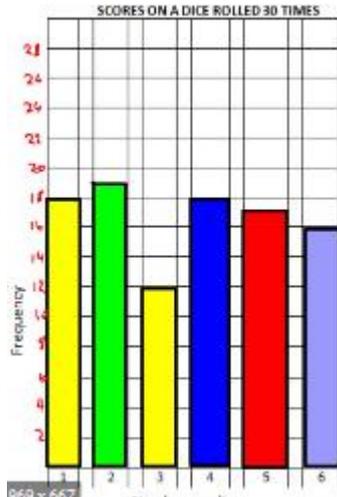


What advice would you give Jamie about the scale he has chosen?
What would be a better scale to use?

Tuesday

Today, we will be using our knowledge of bar charts and answering some sum, comparison and difference questions below. When we are finding the sum of something, we are normally asked to add 'how many altogether' or 'how many overall'. This then means we need to add up all of the scores to get an overall total (all of the bars amounts). If we are asked for a comparison, we are normally calculating using subtraction- we will take away the smallest number from the biggest number to find the answer. If we are looking for a difference question, again we will be looking at subtraction, taking away from the biggest number.

For example:



5. How many rolls were there overall? (Sum)
6. What was the difference between the most popular and least popular? (Difference)
7. How many more times did you roll a 4 compared to a 2? Or vice versa? (Comparing)

Task

Use the information you have learnt above to see if you can answer these questions:

Answer the questions about this column graph:

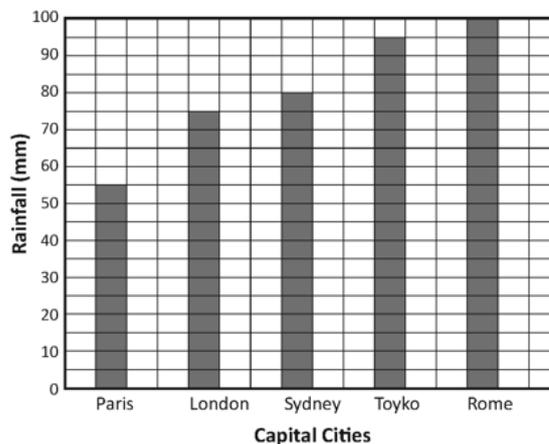
a Which city had the highest rainfall in October?

b What was this city's rainfall?

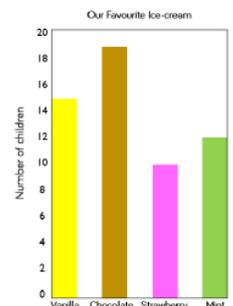
c Which cities had a rainfall between 70 mm and 90 mm?

d How many more millimetres of rain did Rome have than Paris?

Total Rainfall in October



Challenge:



Hannah says,

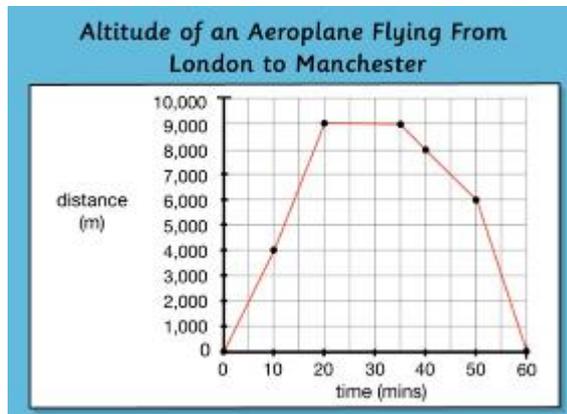


We asked 54 people altogether.

Can you spot Hannah's mistake?
How many people were asked altogether?

Wednesday

Today, we will be having a think about time graphs and how to create these. When we are creating a time graph, it is exactly the same as creating a bar chart however, this time there is numbers along the bottom and the side (normally the bottom/side indicates the time taken). See below for an example. This time, instead of collecting data on a bar chart, we need to plot a point (like with co-ordinates) and then join the dots afterwards from '0'.

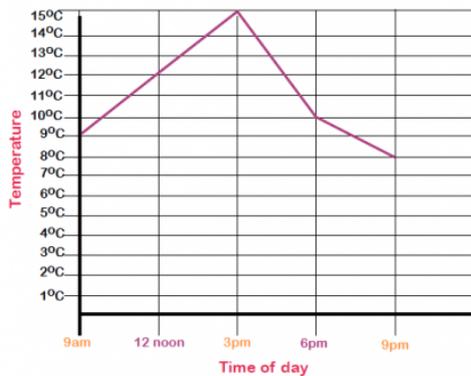


Here, we can see that it took the plane 10 minutes to get to 4,000m in the air. Again, it took 20 minutes to reach 9,000m etc. Here we are plotting points rather than drawing a bar up to the distance.

Task

Today, I would like you to create your own time graph based on the temperature throughout the day. I would like you to see if you can check the temperature outside (whether this be by an actual thermometer or you could use the weather app or BBC weather to inform this). Along the side (vertical line) you should include the temperature (up to 28 degrees). Along the bottom, I would like you to put these times: 9:00am, 11:00am, 1:00pm, 3:00pm, 5:00pm.

See the layout below:



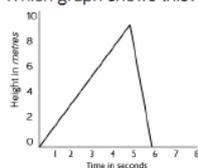
See if you can plot the points and then join them together using a ruler. Then, answer these questions below:

1. Which time showed the warmest temperature during the day?
2. What was the lowest temperature?
3. What was the difference in temperature between 9:00am and 11:00am?
4. How much warmer was it at 1:00pm compared to 11:00am?

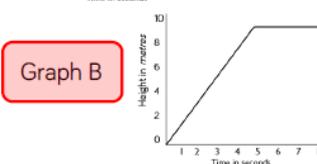
Challenge:

Josh launched a toy rocket into the sky. After 5 seconds the rocket fell to the ground.

Which graph shows this?



Graph A



Graph B

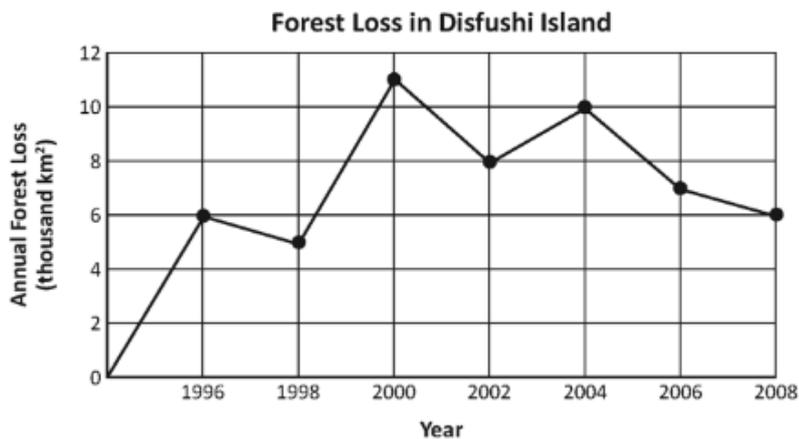
Explain how you know.

Thursday

Today, we will be answering sum, comparison and difference questions on line graphs. This is exactly the same process as before with bar charts, however you will need to just look at the points rather than looking at the whole bars.

Task:

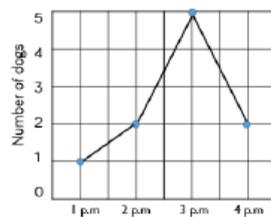
Using the information above, see if you can complete these questions below:



- a How many square kilometres of forest was lost in 1996?
- b How many square kilometres of forest was lost in 2000?
- c In which year were 7 000 square kilometres of forest lost?
- d How much more forest was lost in 2000 than in 2008?
- e Use the graph to estimate the forest loss in 1999.
- f Use the graph to estimate the forest loss in 2003.

The graph shows the number of dogs walking in the park one afternoon.

Challenge:



Dylan says,



At half past one there are 1.5 dogs in the park.

Why is Dylan incorrect?

What would be a better way of presenting this data?

Friday

TT rockstars/Mathletics/Arithmetic test ☺ If you have completed all of the Mathletics activities which I have assigned, please choose on the homepage an activity which relates to the maths you have been doing this week.

Help for this week

If your child is struggling with any of the work this week, especially the drawing, it is always useful to discuss and show the layout before hand. Discuss that each of the lines going up (not the squares) are going to be the scales for the

Games relating to this week:

- Practising pictograms and answering questions about them:
<https://garyhall.org.uk/gordons/swf/Pictograms.swf>
- Practising bar charts and answering questions about them:
https://garyhall.org.uk/gordons/swf/Bar_Chart.swf
- Further game including bar charts and answering questions:
<https://mathsframe.co.uk/en/resources/resource/51/bar-charts>

If you need any extra support, please email me on michaelsyddallyear4@gmail.com and I will help ☺