

Varied Fluency

Step 1: Read and Interpret Line Graphs

National Curriculum Objectives:

Mathematics Year 6: (6S1) [Interpret and construct pie charts and line graphs and use these to solve problems](#)

Differentiation:

Developing Questions to support reading and interpreting line graphs showing 1 data set using scales in increments of 2 and 10 where all increments are shown.

Expected Questions to support reading and interpreting line graphs showing 2 data sets using any scales where all increments are shown.

Greater Depth Questions to support reading and interpreting line graphs showing 2 data sets using any scales where some of the increments are missing.

More [Year 6 Statistics](#) resource.

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Read and Interpret Line Graphs

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1a. Which of the following could you show on a line graph?

- A. How much snow falls over 24 hours.
- B. Your favourite pizza toppings.



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1b. Which of the following could you show on a line graph?

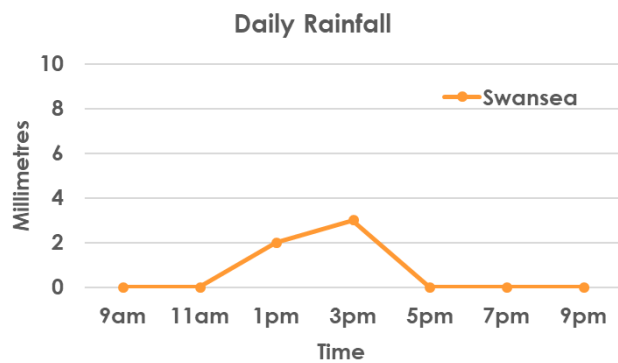
- A. A count of how many push-ups you can do every day for a month.
- B. How many different animals are at the zoo.



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2a. True or false?

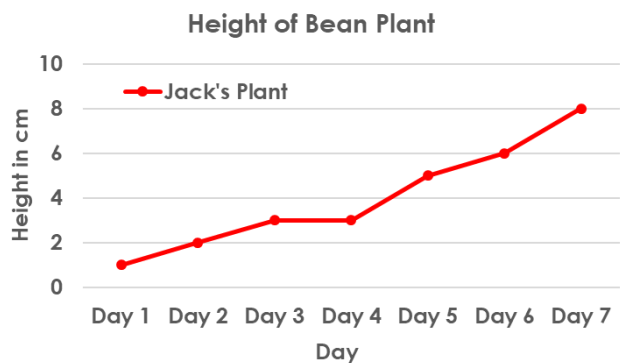
The graph shows that it rained from 9am to 9pm in Swansea.



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2b. True or false?

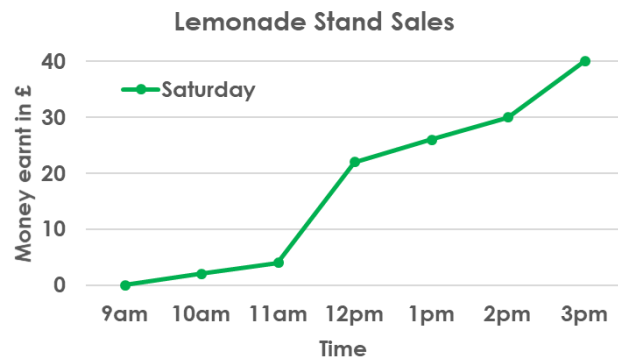
The bean plant didn't grow higher than 4cm.



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3a. According to the graph, which statements are correct?

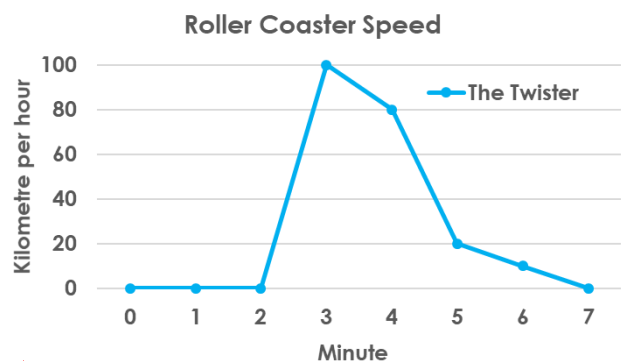
- A. The stand was busiest from 11am-12pm.
- B. The stand sells ice cream.



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3b. According to the graph, which statements are correct?

- A. The roller coaster is called The Drop.
- B. The Twister is stationary for the first two minutes.



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Read and Interpret Line Graphs

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4a. Which of the following could you show on a line graph?

- A. The titles of all the books read over a summer holiday.
- B. How far two people can run in 2 hours.
- C. How the price of milk and butter has changed over 20 years.



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4b. Which of the following could you show on a line graph?

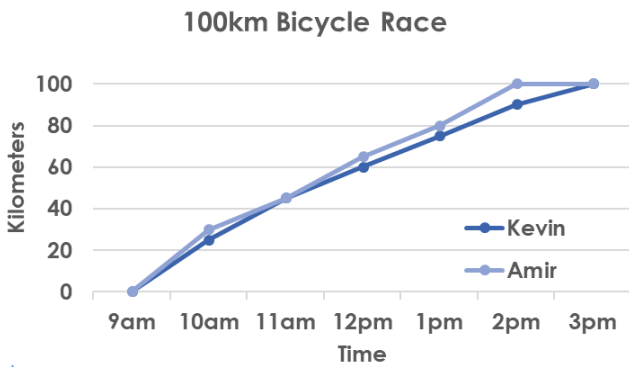
- A. Your height measured on the same day every month for a year.
- B. Water level of two rivers over a month.
- C. The number of flowers growing in your garden.



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5a. True or false?

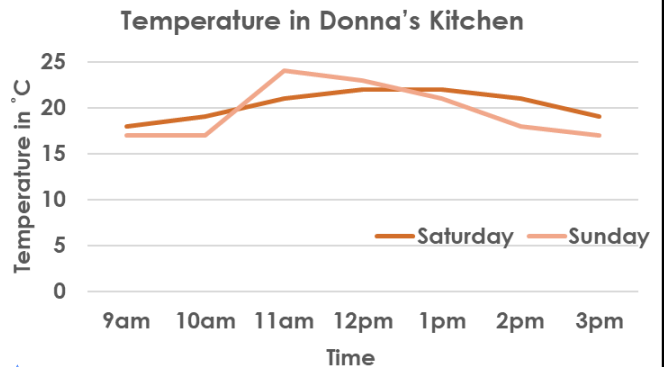
Kevin won the bicycle race.



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5b. True or false?

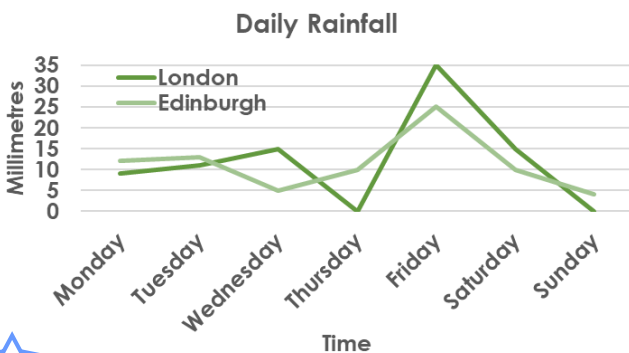
Donna had the heating on in her kitchen on Sunday morning.



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6a. According to the graph, which statements are correct?

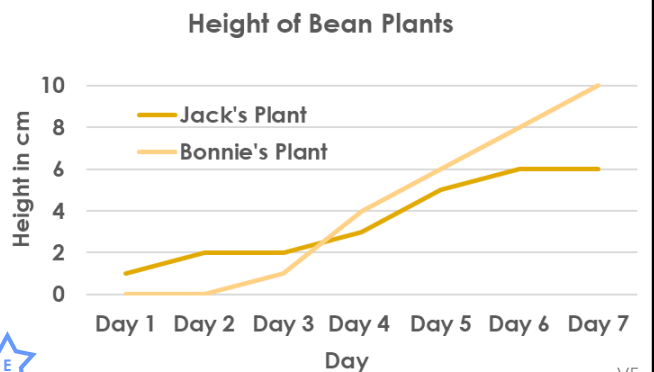
- A. Both cities had one day with no rain.
- B. Friday was the rainiest day in both cities.



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6b. According to the graph, which statements are correct?

- A. Bonnie's bean plant was 4cm taller than Jack's on Day 7.
- B. Jack's bean plant grew 1cm between Day 5 and Day 7.



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Read and Interpret Line Graphs

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7a. Complete the table by giving an example of data that can be represented by each of the graphs or charts below.

Line Graph	
Bar Chart	



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7b. Complete the table by giving an example of data that can be represented by each of the graphs or charts below.

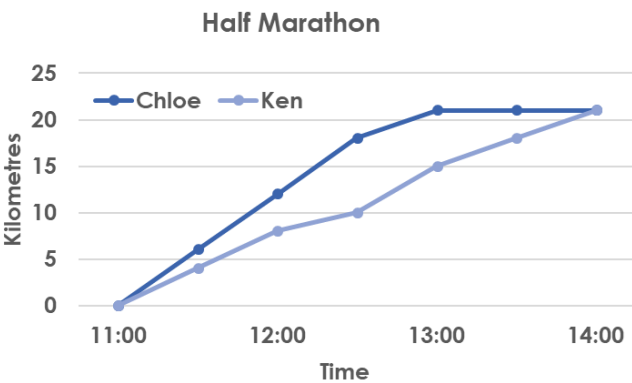
Line Graph	
Tally Chart	



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8a. True or false?

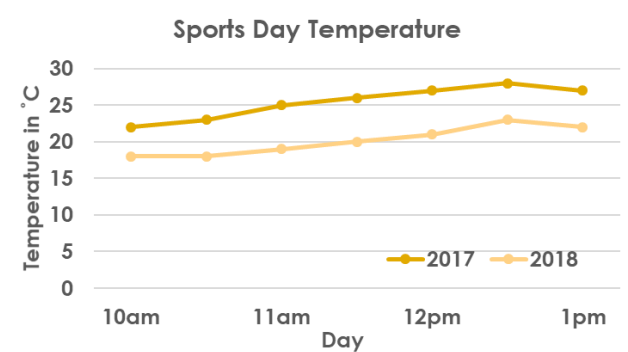
Both friends finished the half marathon (21km) by 1:30pm.



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8b. True or false?

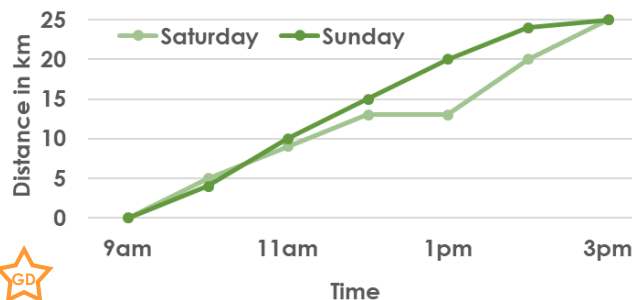
12:30pm was the warmest time during sports day in 2017 and 2019.



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9a. According to the graph, which statements are correct?

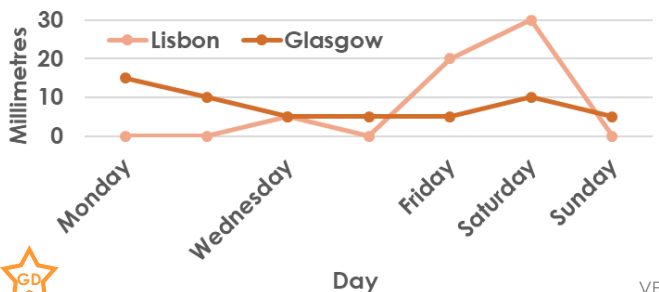
- A. On Sunday, the hiker walked quickest after 2pm.
 - B. The hiker had walked 5km by 10am on Saturday.
 - C. The hiker stopped for a break at 12pm on Saturday.
- Hiking Weekend



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9b. According to the graph, which statements are correct?

- A. Lisbon and Glasgow both had 5mm of rain on Wednesday.
 - B. There was heavy rain in Glasgow on Friday.
 - C. Lisbon had four days without rain this week.
- Daily Rainfall



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Read and Interpret Graphs

Developing

- 1a. **A**
- 2a. **False, it rained from 11am to 5pm.**
- 3a. **A is correct.**

Expected

- 4a. **B and C**
- 5a. **False, Amir won the race.**
- 6a. **B is correct.**

Greater Depth

- 7a. **Various answers, for example:**
Line graph = weight of a baby measured on the same day every month for a year.
Bar chart = number of children in class born on different days of the week.
- 8a. **False as Ken still has 3km to run.**
- 9a. **B and C are correct.**

Varied Fluency
Read and Interpret Graphs

Developing

- 1b. **A**
- 2b. **False, the bean plant grew to 8cm.**
- 3b. **B is correct.**

Expected

- 4b. **A and B**
- 5b. **True, Donna turns the heating on at about 10am.**
- 6b. **Both statements are correct.**

Greater Depth

- 7b. **Various answers, for example:**
Line graph = number of people in a shop throughout the day.
Tally chart = types of vehicles on the car park.
- 8b. **True**
- 9b. **A and C are correct.**