Homework/Extension
Step 1: Read and Interpret Line Graphs

National Curriculum Objectives:

Mathematics Year 5: (5S2) Solve comparison, sum and difference problems using information presented in a line graph

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)
Developing Read and interpret a line graph that uses labelled increments of 2, 5 or 10. Some data points are halfway between labelled increments where the halfway lines are shown but not labelled.
Expected Read and interpret a line graph showing 1 data set. Graph uses labelled increments of any value, for example: 3's, 4's, 6's.
Greater Depth Read and interpret a line graph showing 1 data set. Graphs use labelled increments of any value. Most data points are between labelled increments where the minor lines may or may not be shown.

Questions 2, 5 and 8 (Varied Fluency)
Developing Identify an incorrect statement about data on a line graph that uses labelled increments of 2, 5 or 10. Some data points are halfway between labelled increments where the halfway lines are shown but not labelled.
Expected Identify incorrect statements about data on a line graph showing 1 data set. Some data points are between labelled increments where the minor lines are shown but not labelled. Times on the x-axis have unlabelled data of half past a given hour.
Greater Depth Identify incorrect statements about data on a line graph showing 1 data set reading between labelled increments of 2, 5 or 10, where an estimate of the value must be given.

Questions 3, 6 and 9 (Reasoning and Problem Solving)
Developing Explain the shape of a line graph showing 1 data set using labelled increments of 2, 5 or 10. Some data points are halfway between labelled increments where the halfway lines are shown but not labelled.
Expected Explain the shape of a line graph showing 1 data set, reading between labelled increments of 2 or 5, where an estimate of the value must be given.
Greater Depth Explain the shape of a line graph showing 1 data set. Most data points are between labelled increments where the minor lines may or may not be shown.

More Year 5 Statistics resources.

Did you like this resource? Don't forget to review it on our website.

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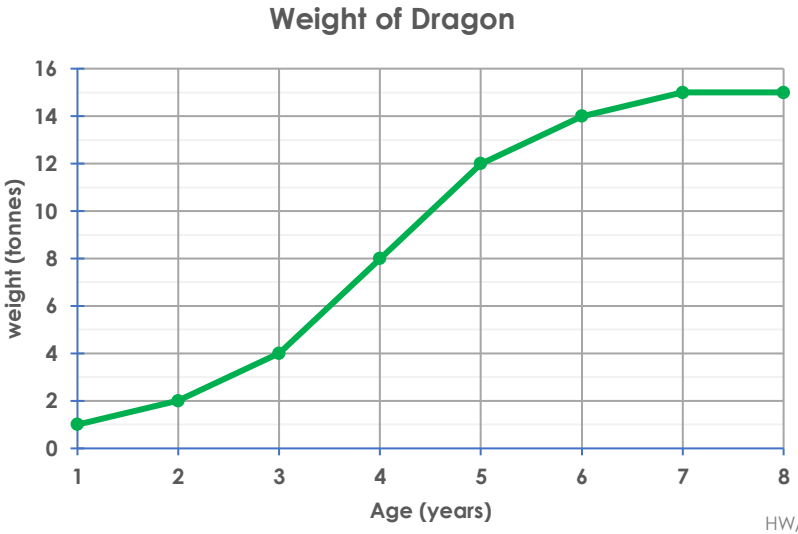
Read and Interpret Line Graphs

1. This graph tracks the weight of a dragon from its first birthday until reaching adulthood.

A. How much did the dragon weigh when it was 4?

B. At what age did the dragon reach its full weight?

C. What was its full weight?



D

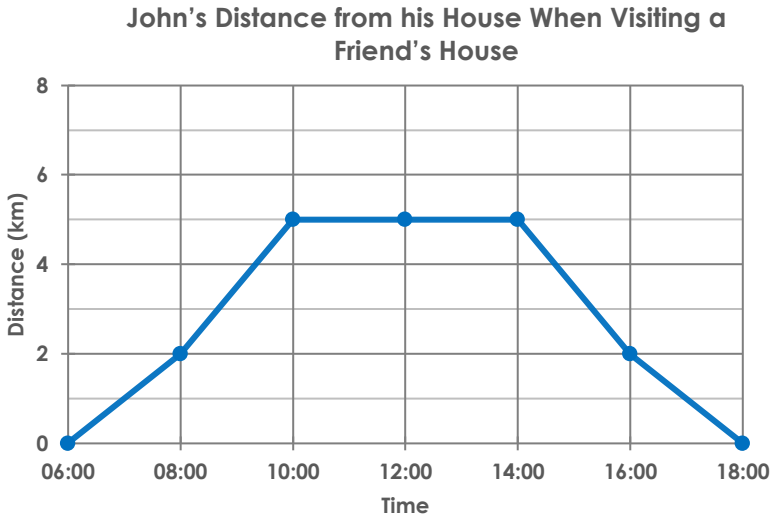
VF
HW/Ext

2. Which of these statements is false?

A. His friend lives 5 km away.

B. John got home at 16:00.

C. He stayed there for 4 hours.



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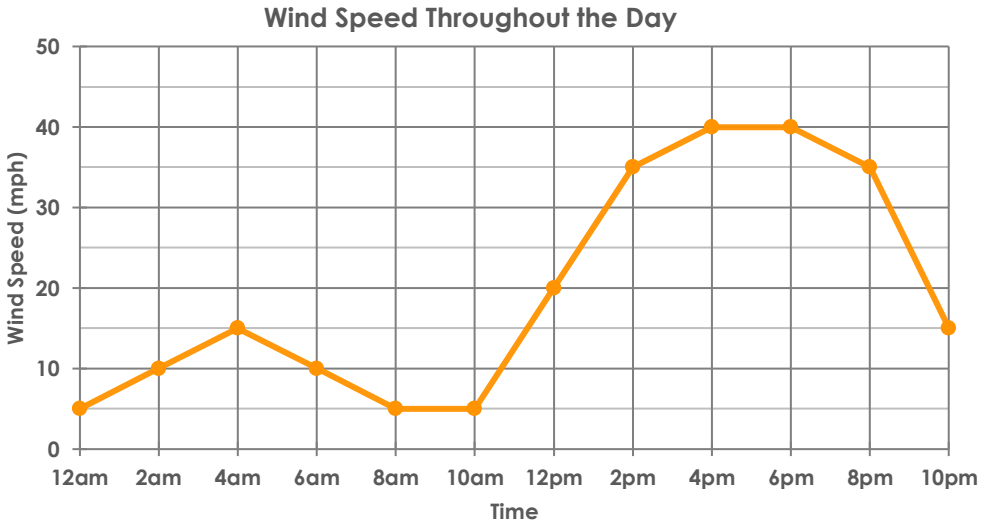
3. There was a storm during the day. What time did it start? Explain your answer.



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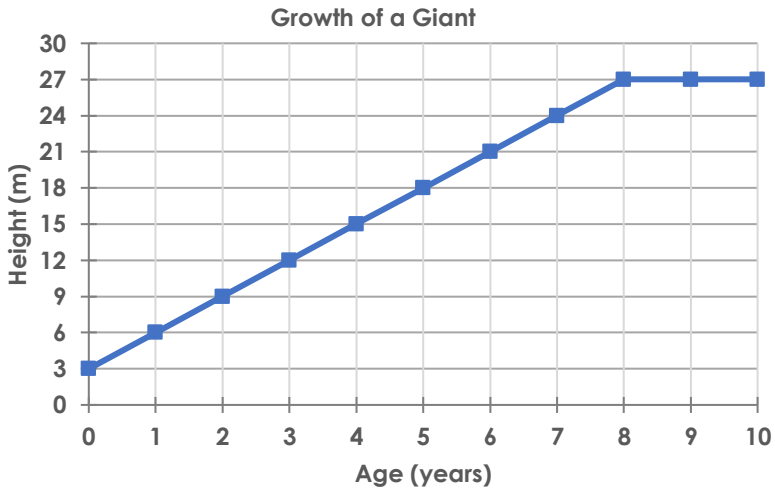
Read and Interpret Line Graphs

4. Giants grows at the same rate each year until they reach their full heights.

A. At what age did the giant reach its full height?

B. What was the giant's height when it was 7 years old?

C. How much did the giant grow between 3 and 5 years old?



E

VF
HW/Ext

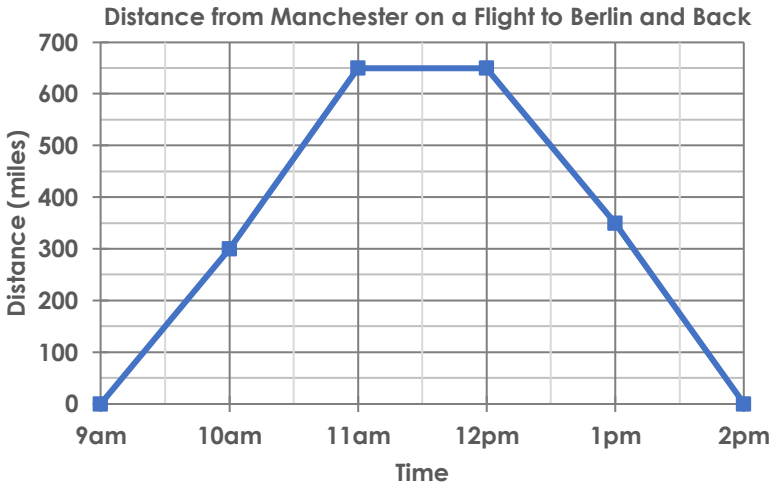
5. Which of these statements are false?

A. Between 10am and 11am, the plane travelled 450 miles.

B. The plane arrived in Berlin at 11am.

C. The distance between Manchester and Berlin is 600 miles.

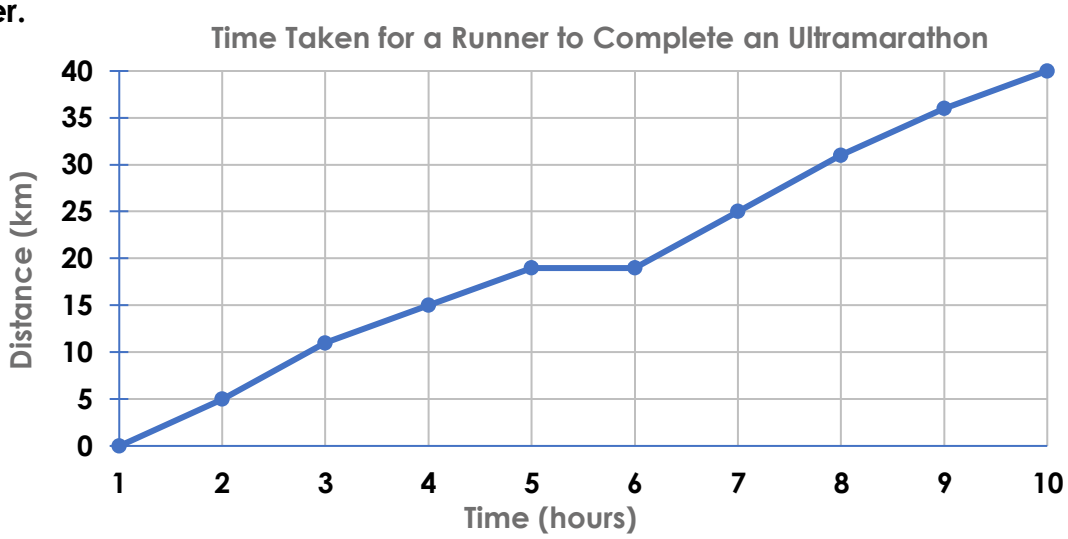
D. At 1pm, the aeroplane was 350 miles from Manchester.



E

VF
HW/Ext

6. The runner had problems. What time and distance did the problems start? Explain your answer.



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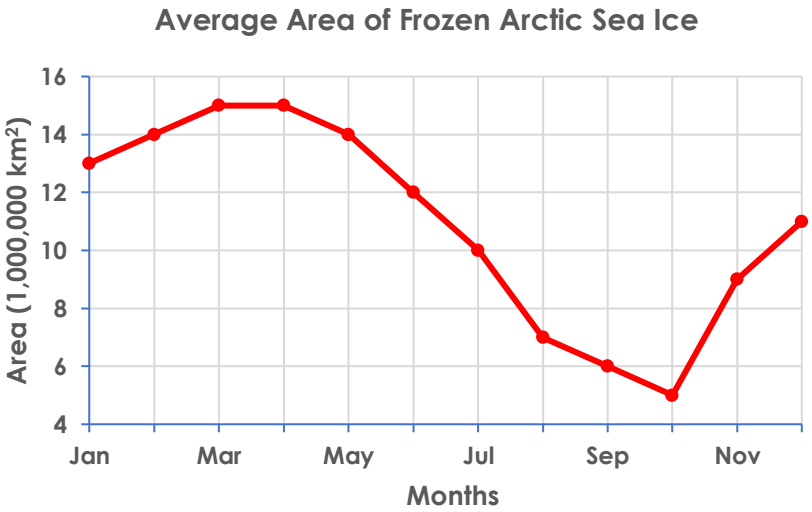
Read and Interpret Line Graphs

7. Use the chart to answer the questions.

A. Which month had the least amount of frozen sea ice?

B. What is the difference between the average area of sea ice of May and September?



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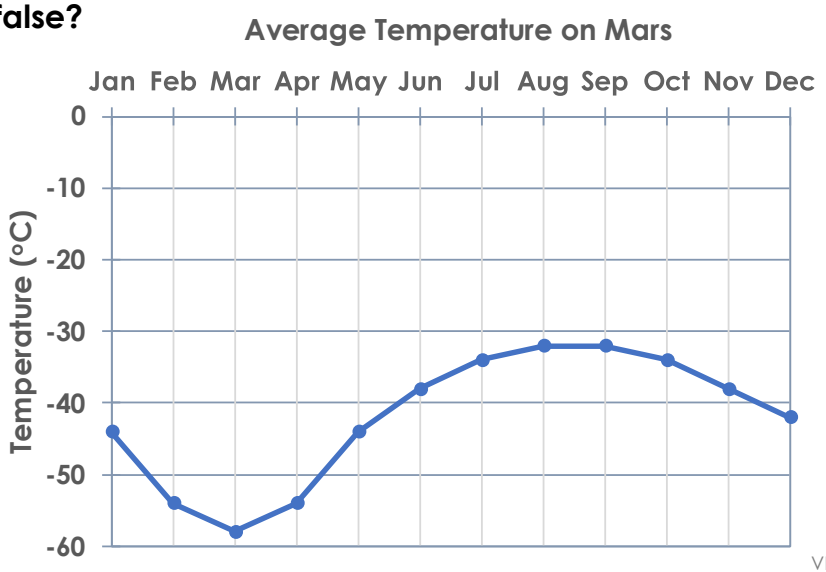
8. Which of these statements are false?

A. On average, Mars is coldest between August and September.

B. The average temperature is the same in January and May.

C. The difference between the highest and lowest average temperature is 24°C.



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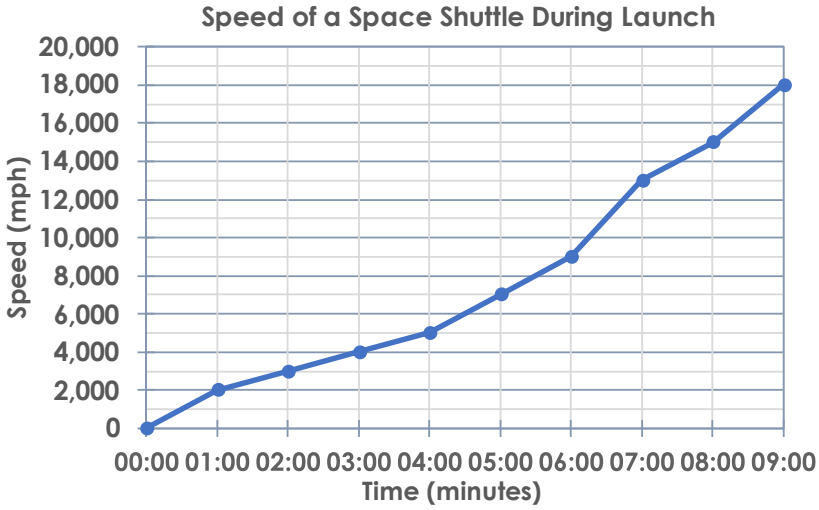
HW/Ext

9. The speed of a space shuttle is tracked during launch. Between which two consecutive minutes was the shuttle's acceleration at its fastest? Explain your answer.



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Homework/Extension
Read and Interpret Line Graphs

Developing

1. A. 8 tonnes; B. 7 years old; C. 15 tonnes
2. B
3. The storm started at 10am. I know this because the wind speed increased quickly from this time.

Expected

4. A. 8 years old; B. 24 metres; C. 6 metres
5. A and C
6. The problem started after 5 hours at 19 km. I know this because at this time he stopped running as the distance did not increase in between 5 and 6 hours.

Greater Depth

7. A. October; B. 8,000,000 km^2
8. A and C
9. The shuttle's acceleration was at its fastest between the minutes of 06:00 and 07:00. The speed increased from 9,000 mph to 13,000 mph which is an increase of 4,000 mph. This is the fastest increase in speed within one minute shown on the graph.

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