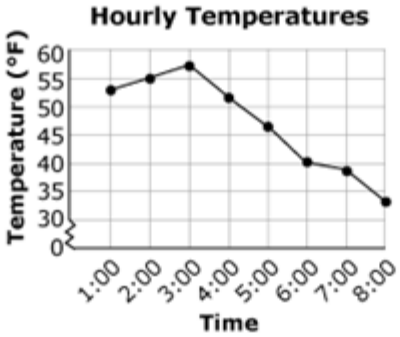
7th Grade Bellwork

Week 18-Jan 21—25

Misleading data in graphs

KCA # 13 Session ID: TTRXPY4400

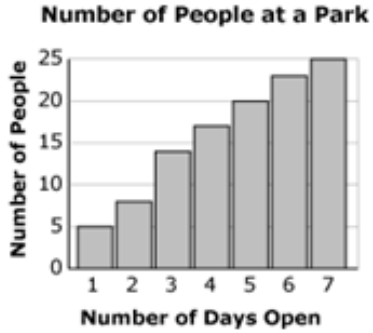
Kevin recorded hourly temperatures outside his house from 1:00 p.m. to 8:00 p.m., as shown below.



Kevin wants to change the scale on the vertical axis to show units of 2 instead of 5. Which statement best describes how the graph will look after Kevin makes this change?

A. The change in temperature each hour will appear to be less.
B. The change in temperature each hour will appear to be greater.
C. The highest temperature on the graph will appear to be at 1:00 p.m.
D. The highest temperature on the graph will appear to be at 8:00 p.m.

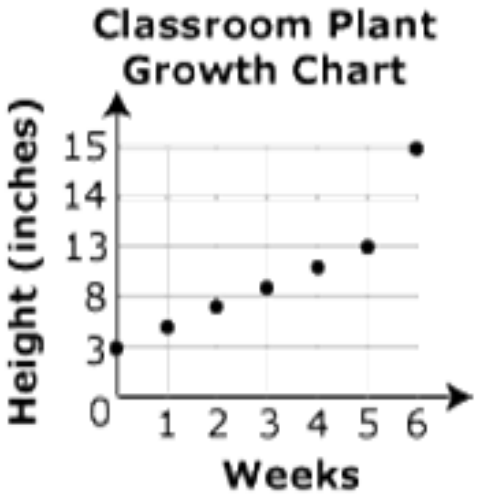
Stephanie recorded the number of people who came to a new park at the same time each day for the first 7 days it was open. The bar graph below shows the information Stephanie recorded.



Stephanie wants to change the scale on the vertical axis to units of 10 instead of 5. Which statement **best** describes how the graph will look after Stephanie makes this change?

A. Day 1 will appear to be the day with the greatest number of people at the park.
B. Day 6 will appear to be the day with the greatest number of people at the park.
C. The difference in the number of people who went to the park each day will appear to be less.
D. The difference in the number of people who went to the park each day will appear to be greater.

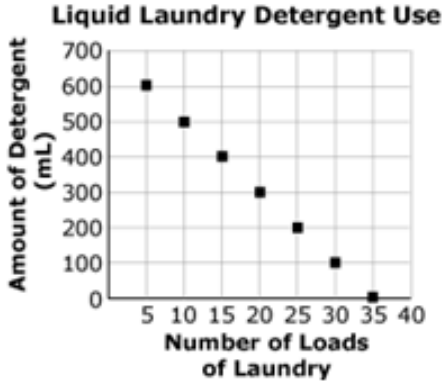
The graph to the right shows that a plant grew 2 inches each week, over a 6-week period.



For which reason could the graph be misleading?

A. The intervals on the *x*-axis increase by uneven amounts.
B. The intervals on the *y*-axis increase by uneven amounts.
C. The first data point does not appear at the origin.
D. The seventh data point was plotted incorrectly.

The graph below shows the approximate amount of liquid laundry detergent that will remain in the bottle after every 5 loads of laundry that are washed.



If the intervals on the horizontal axis were changed to count by 10 instead of by 5, how would the appearance of the graph change?

A. The data points would move away from the horizontal axis, toward the top of the graph.
B. The data points would move closer to the horizontal axis, toward the bottom of the graph.
C. The data points would move closer to the vertical axis, toward the left side of the graph.
D. The data points would move away from the vertical axis, toward the right side of the graph.

The bar graph below shows the increase in average weekly grocery prices over three years.

Shanna looked at the graph and stated that average weekly grocery prices increased by $10 per year, but she made a mistake. What mistake did Shanna make?

A. She stated the number of years instead of the difference between the heights of the bars.
B. She stated the number of years instead of the cost per week.
C. She thought that the horizontal scale consistently increased by 10.
D. She thought that the vertical scale consistently increased by 10.