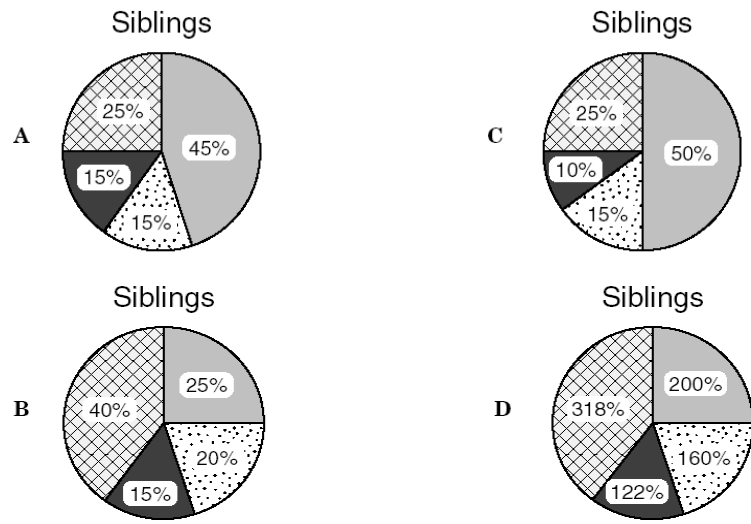
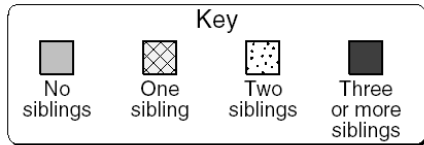


1.

Of the 800 students at a local high school, 200 students have no siblings, 318 students have one sibling, 160 students have two siblings, and the rest of the students have three or more siblings. Use the key below to find the circle graph that best represents this information.



- 200 = 0 siblings 318 = 1 siblings
- 160 = 2 siblings How many have more siblings? _____

- Which group has the biggest count? _____ so that group has the biggest cut of the pie. This eliminates ___ and ___.

- What is wrong with answer D? _____

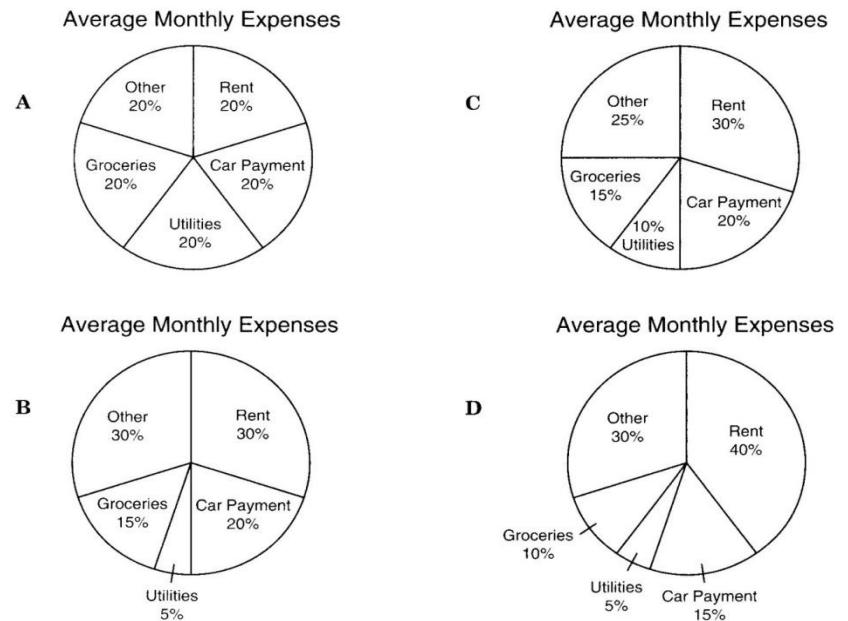
2.

The table below shows Paul's average monthly expenses.

Average Monthly Expenses

Expense	Amount
Rent	\$570
Car payment	\$380
Utilities	\$190
Groceries	\$285
Other	\$475

Which circle graph correctly represents the data in the table?



What can we do before even considering "math"?

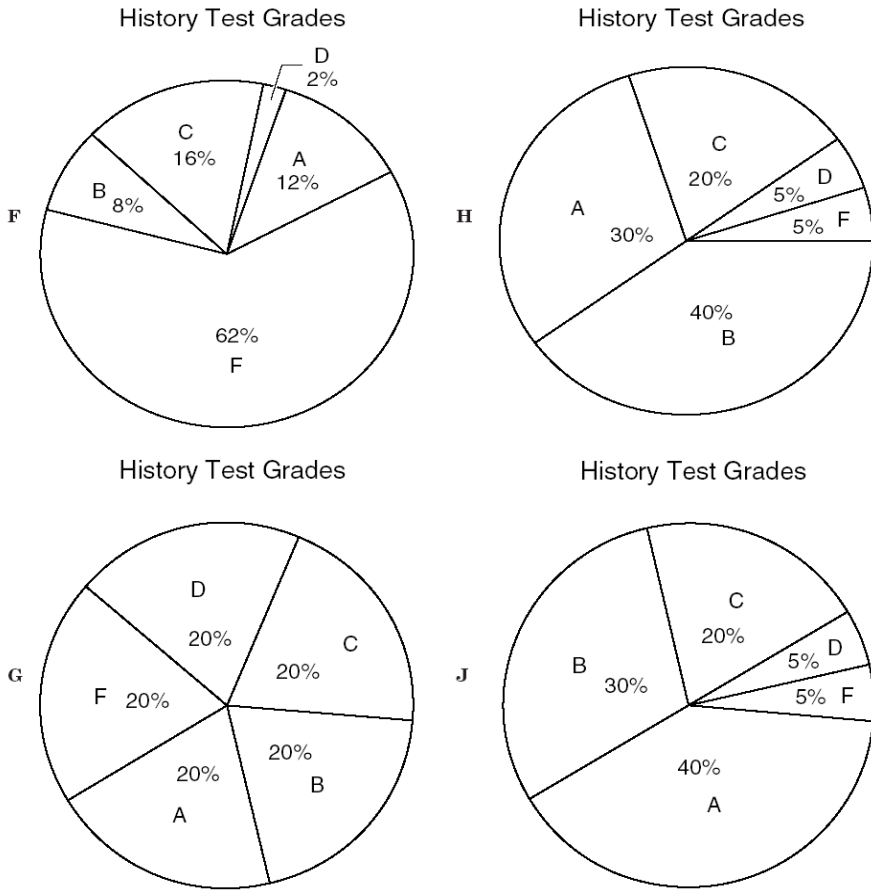
Look at A. What is wrong with it? _____

Look at B. What is wrong with it? _____

Look at D. Is there something about Other and car payments that looks wrong? _____

So, what can we conclude? _____

3. Students in two honors history classes took their first test. Of 40 students taking the test, 12 received an A, 16 received a B, 8 received a C, 2 received a D, and the remaining received an F. Which circle graph best represents these data?



It says 40 kids took a test. 12 got an A, 16 got a B, 8 got a C and 2 got a D. The rest failed.

How many failed? _____

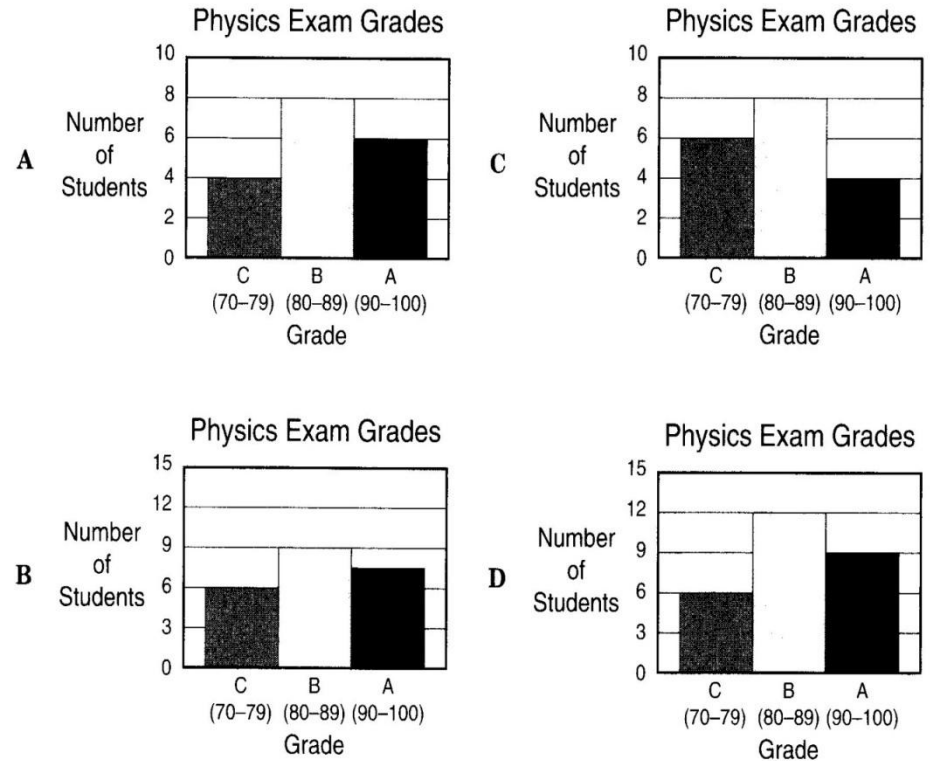
So what 2 categories should be the only ones that are the same size same size? _____ That eliminates _____ and _____. Were there more As or Bs.

End of story.

4. The table shows students' grades on a physics exam.

94	92	81	98	88	91
85	91	85	75	90	89
71	80	83	81	77	78

Which histogram correctly represents these data?



How many 90-100 Grades? _____

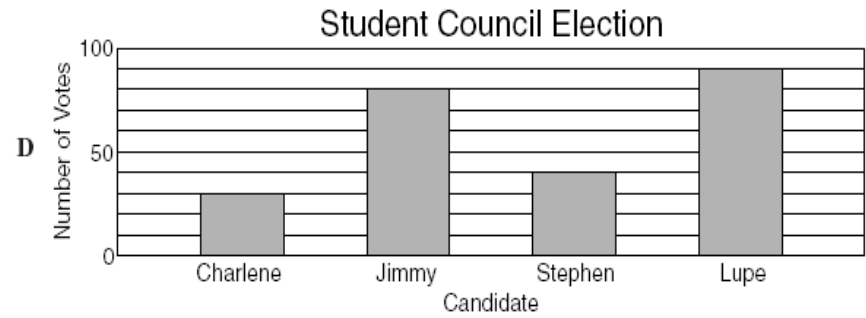
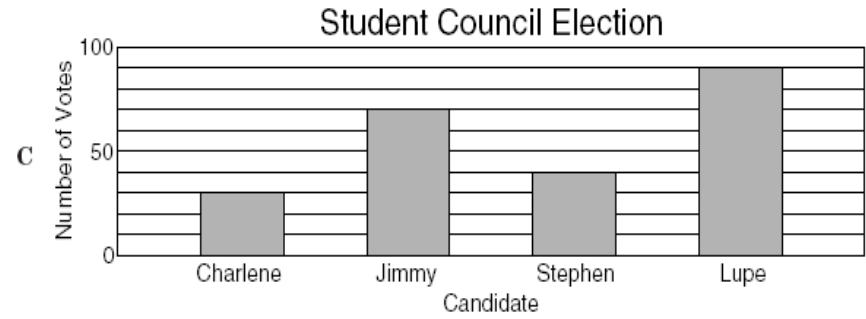
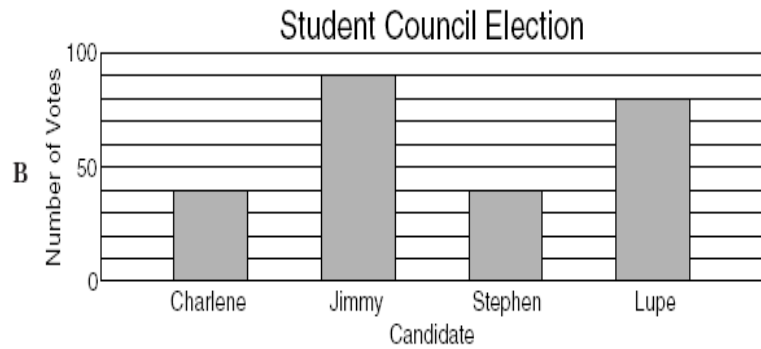
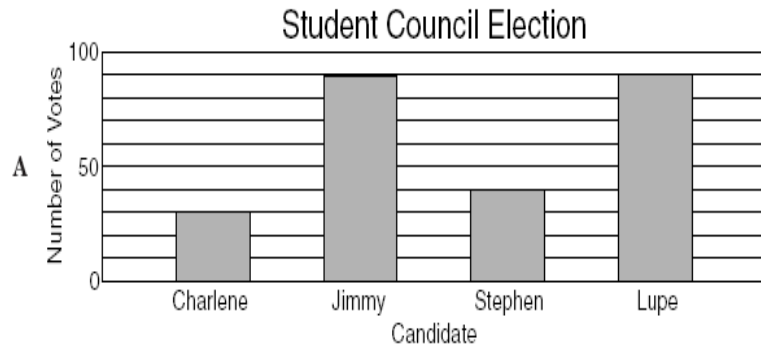
How many 80-89 grades? _____

How many 70-79 grades? _____

HISTOGRAMS

5.

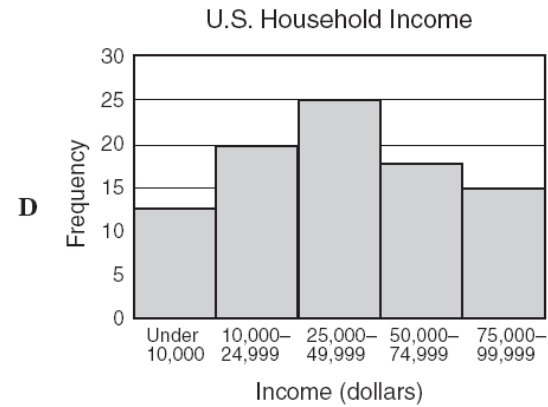
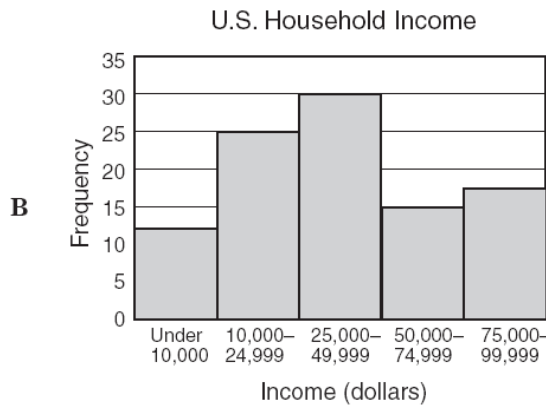
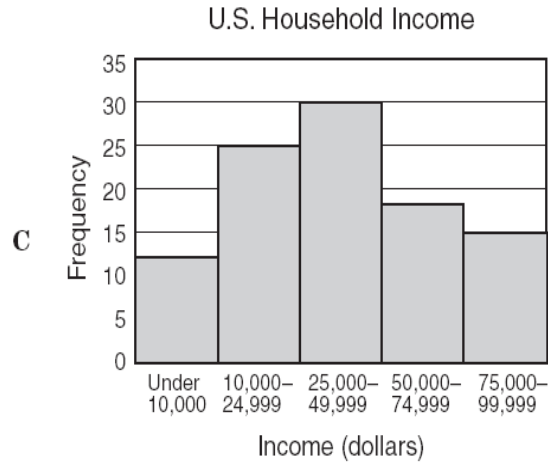
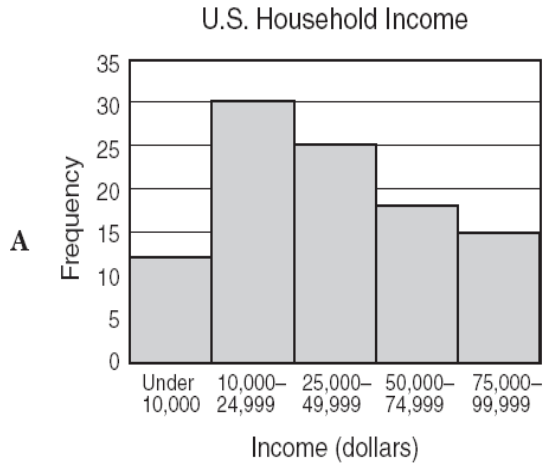
The student election committee at Chesterfield High School recorded the number of votes that each of 4 presidential candidates received in the student council election. A total of 240 students voted. Charlene received 12.5% of the votes, Jimmy received 33.3%, Stephen received 16.7%, and Lupe received 37.5%. Which bar graph best represents the number of votes each presidential candidate received in the student council election?



Who has the biggest percent ____? That eliminates ____ and ____.

Now you have to do some percents.

6.



Which histogram best reflects the data shown in the table?

U.S. Household Income

Income Range	Frequency
Under \$10,000	
\$10,000-24,999	
\$25,000-49,999	
\$50,000-74,999	
\$75,000-99,999	
Total	100 Households

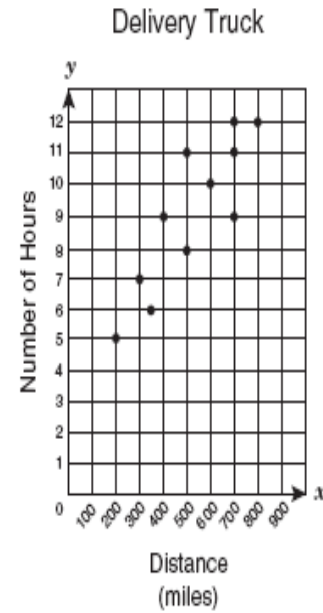
Count them:

- Under 10,000? _____
- 10k to 24,999 _____
- 25k to 49,900 _____
- 50k to 74,999 _____
- 75k to 99,999 _____

Compare them to the histograms

7.

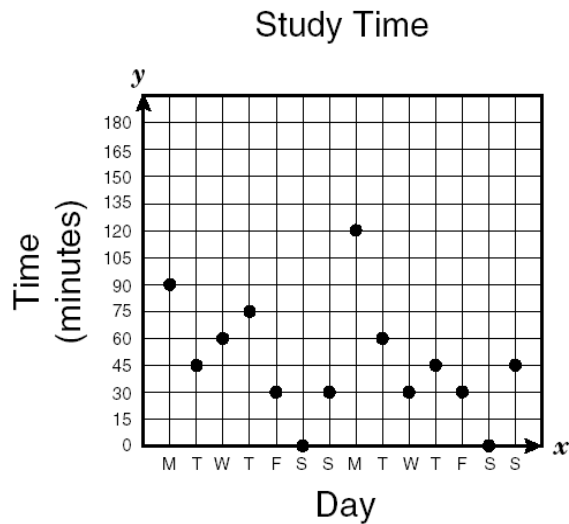
The graph below shows the relationship between the distance in miles a delivery truck traveled and the number of hours each delivery took.



Which best describes the relationship shown on the graph?

- A Negative trend
- B Positive trend
- C Constant trend
- D No trend

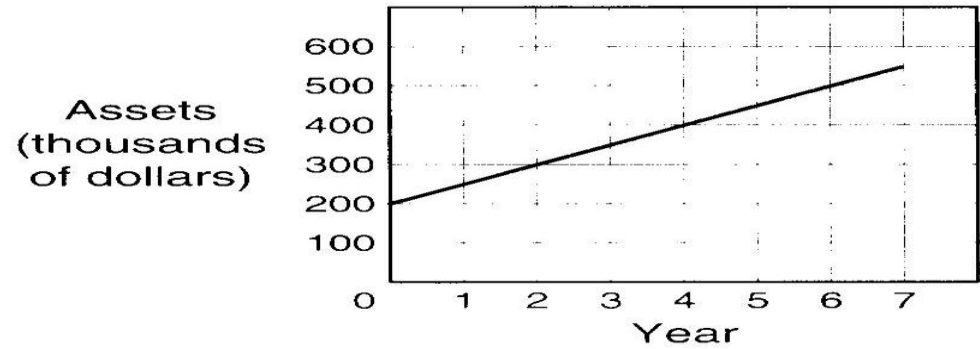
8. The graph below shows the amount of time Dennis spent studying over a 2-week period in October.



Which of the following statements would be an invalid conclusion for these data?

- F** Dennis spent a total of 660 minutes studying.
- G** Dennis studied for an average of about 47 minutes per day.
- H** Dennis studied for an average of 330 minutes per week.
- J** Dennis earned good grades during this 2-week period.

9. The graph projects a business's growth in financial assets over a seven-year period.



Which of the following interpretations of the graph is true?

- A** The company's initial assets are \$200,000. The expected growth rate is \$50 per year.
- B** The company's initial assets are \$200. The expected growth rate is \$50,000 per year.
- C** The company's initial assets are \$200,000. The expected growth rate is \$50,000 per year.
- D** The company's initial assets are \$200. The expected growth rate is \$50 per year.

Assets are marked as (thousands of dollars)

Re label assets using thousands of dollars, not the short form used.

Now do the problem

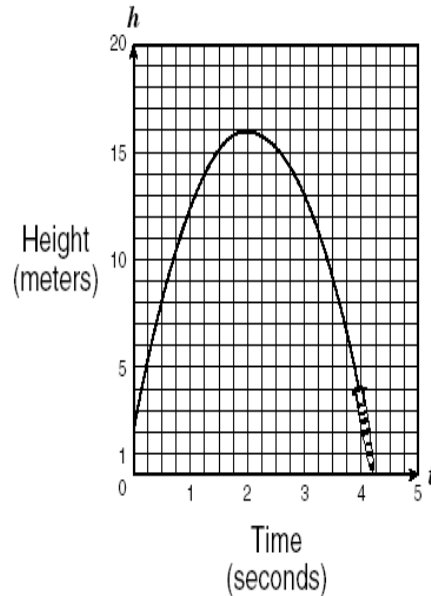
This is not a math problem, it is a thought problem. It asks for the **INVALID** conclusion.

In 8, if the total is in fact 660 minutes what is the weekly average? _____; Dailey average ____; So, if F is true, so is G and H, and if H is true, so is F and G.

STATISTICAL GRAPHS

10.

The graph below shows h , the height in meters of a model rocket, versus t , the time in seconds after the rocket is launched. From the graph, what conclusion can be made about the flight of the rocket?



- A The rocket reached its maximum height after 2.5 seconds.
- B At 0 seconds the rocket was 2 meters off the ground.
- C The height of the rocket was 0 meters when it was launched.
- D The rocket was in flight for 5 seconds.

1. Find the max height and mark it. How many seconds is below your mark? _____; What is the max height? _____
2. Find zero seconds. What was the height at zero seconds? _____ If you answered zero, look again.
3. Based on 2, can answer C be correct? _____
4. Circle where the rocket hits the ground. Circle 5 seconds. Are they the same? _____

11.

The table below shows the population and the area in square miles of some U.S. states.

State	Population	Area (square miles)
Alaska	626,932	591,004
California	33,871,648	155,973
Florida	15,982,378	58,560
Montana	902,105	147,137
New Jersey	8,414,350	7,836
Texas	20,851,830	267,338

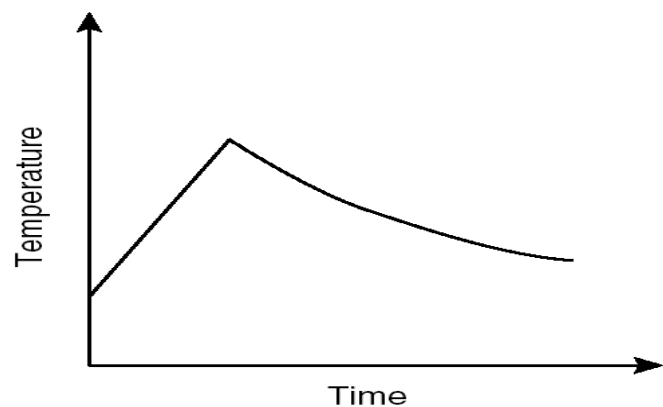
Which statement best describes the relationship between the population and the area of a state?

- A The larger a state's area, the larger its population is.
- B No relationship can be determined from the data in the table.
- C New Jersey has the smallest population of the states in the table because it has the smallest area.
- D Texas is the largest U.S. state.

STORY GRAPHS

12.

The graph below best represents which of the following relationships between temperature and time?



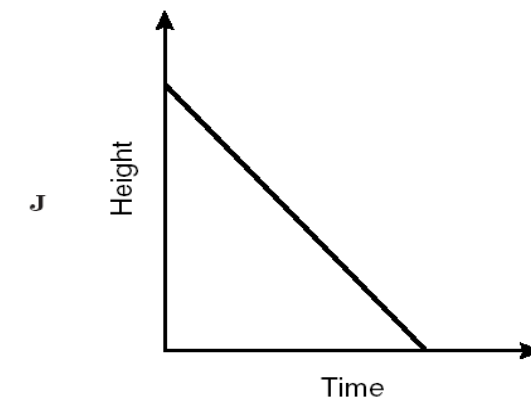
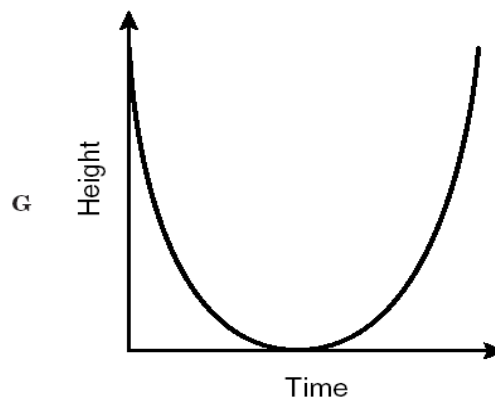
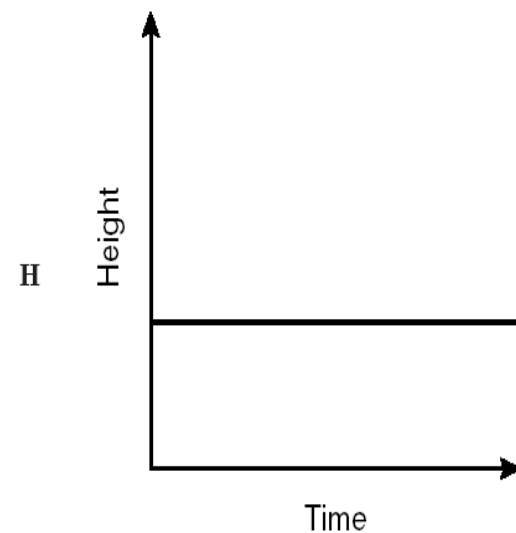
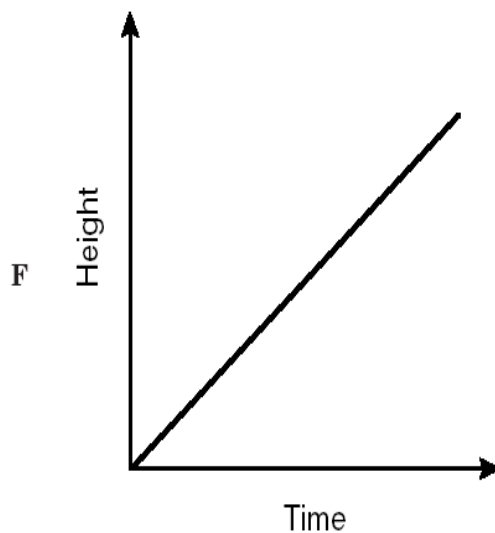
- A Oven temperature while a cake is baking
- B Temperature of water that is heated on a stove, removed, and then allowed to cool
- C Temperature of a container of hot tea after placing several cubes of ice in it
- D Room temperature of a gym after the air conditioner is turned on

Read each story with your finger following it on the graph.

Which matches? _____

13.

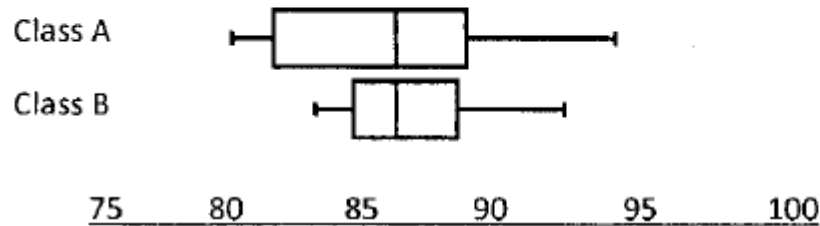
Which graph best represents the relationship between the height of a burning candle and the amount of time that passes as the candle burns?



Select your answer and draw the candles in it to show how a candle burns.

14.

- Below are box and whisker plots that represent the test grades of two different classes on the last mathematics test. Class A is above Class B. Which of the statements is a true statement based on the graphs?



- A. The mean scores for the classes are the same.
- B. The classes had the same median score, but Class A had a larger range of grades than Class B.
- C. More of Class A's scores are clustered nearer the median.
- D. More students in Class A scored above 90 than in Class B.

The anatomy of a box whisker plot:

This is a graphical way to present the median, and track in your range. Also, it adds another bit of data called quartiles. The first quartile or Q_1 is the median of the lower half of the data and the 3rd quartile Q_3 is the median of the upper half of the data. AND YES!! Your real median or the middle value is also called the 2nd quartile or Q_2 ! Whew!

