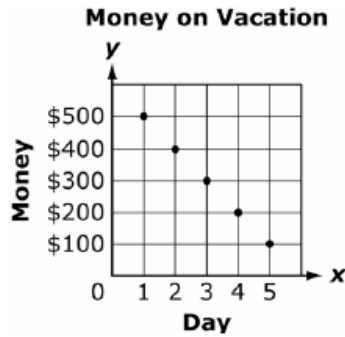


Algebra 2 Quick Quiz 12192022

Question 1.

Nancy made a scatter plot of how much money she had left at the end of each day of her vacation.

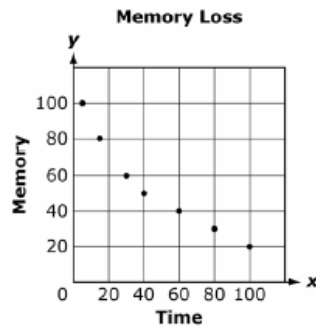


Which table best represents the data in her scatter plot?

- A
- | | | | | | |
|-------|-------|-------|-------|-------|-------|
| Day | 1 | 2 | 3 | 4 | 5 |
| Money | \$100 | \$100 | \$100 | \$100 | \$100 |
- B
- | | | | | | |
|-------|-------|-------|-------|-------|-------|
| Day | 1 | 2 | 3 | 4 | 5 |
| Money | \$100 | \$200 | \$300 | \$400 | \$500 |
- C
- | | | | | | |
|-------|-------|-------|-------|-------|-------|
| Day | 1 | 2 | 3 | 4 | 5 |
| Money | \$500 | \$200 | \$300 | \$400 | \$100 |
- D
- | | | | | | |
|-------|-------|-------|-------|-------|-------|
| Day | 1 | 2 | 3 | 4 | 5 |
| Money | \$500 | \$400 | \$300 | \$200 | \$100 |

Question 2

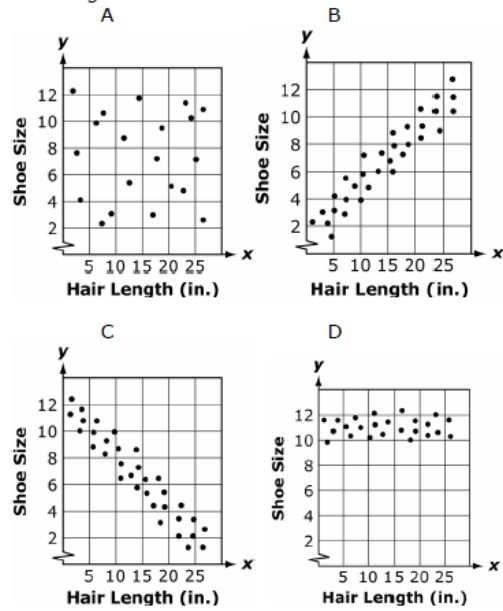
Which set of data best represents the data on the scatter plot?



- A
- | | | | | | |
|--------|----|----|----|----|-----|
| Time | 10 | 30 | 60 | 80 | 100 |
| Memory | 95 | 60 | 40 | 30 | 20 |
- B
- | | | | | | |
|--------|----|----|----|----|-----|
| Time | 10 | 30 | 60 | 80 | 100 |
| Memory | 20 | 30 | 40 | 60 | 95 |
- C
- | | | | | | |
|--------|-----|----|----|----|-----|
| Time | 10 | 30 | 60 | 80 | 100 |
| Memory | 100 | 80 | 60 | 40 | 20 |
- D
- | | | | | | |
|--------|----|----|----|----|-----|
| Time | 10 | 30 | 60 | 80 | 100 |
| Memory | 85 | 60 | 50 | 40 | 20 |

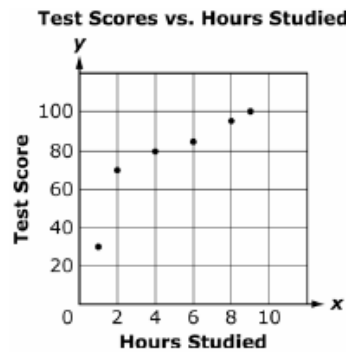
Question 3.

Which scatter plot best represents the lack of correlation between shoe size and hair length?



Question 4.

The test scores and hours studied of 6 students were put into a scatter plot.



If another student studies 2 hours, what is the most likely test score based on this data?

- A 20
- B 60
- C 70
- D 80

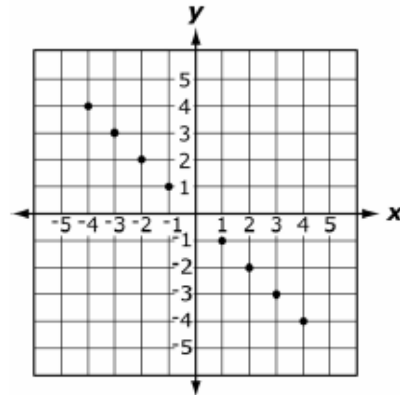
Question 5.

Which of these observations would be consistent with an exponential model of population growth?

- A The population started out large, decreased in size, then became large again.
- B The population is observed to increase at a faster rate as time passes.
- C The population is observed to increase steadily over time.
- D The population grew very quickly but then declined.

Question 6.

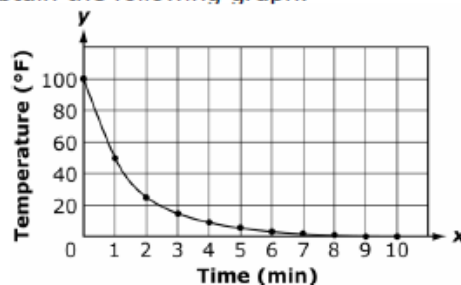
Which equation most closely models the data in the scatter plot?



- A $y = x$
- B $y = -x$
- C $y = 2x$
- D $y = -2x$

Question 7.

Students in a science classroom perform an experiment to find the rate at which a hot liquid cools in a freezer. They plot the temperature over time and obtain the following graph.

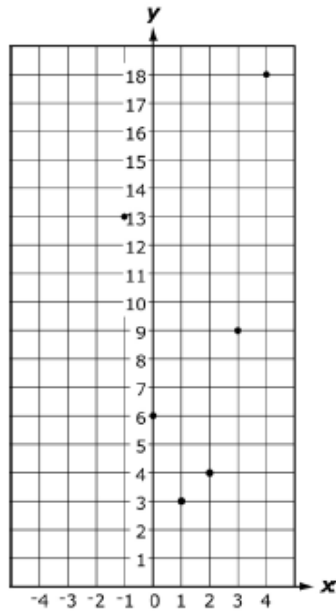


Which type of function best models the data in this scatter plot?

- A exponential
- B logarithmic
- C quadratic
- D linear

Question 8.

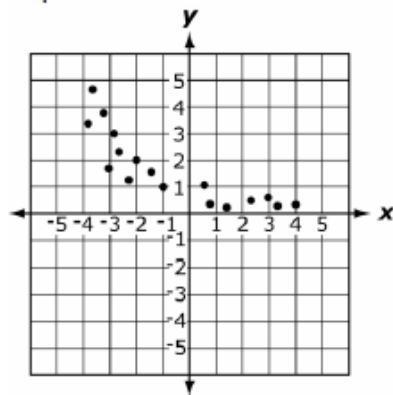
Which equation most closely models the data in the scatter plot?



- A $y = x^2 - 4x + 6$
- B $y = -x^2 - 2x + 6$
- C $y = -2x^2 - x + 6$
- D $y = 2x^2 - 5x + 6$

Question 9.

Which equation best models the data in this scatter plot?



- A $y = 5 \cdot 3^x$
- B $y = 0.5 \cdot 3^x$
- C $y = 5 \cdot 0.5^x$
- D $y = 0.5 \cdot 5^x$

Question 10.

What is the 12th term in the sequence {1, 3, 5, 7,...}?

Arithmetic Sequences & Series

$$n^{\text{th}} \text{ term: } a_n = a_1 + (n-1)d$$

$$\text{Sum: } s_n = \frac{n}{2}(a_1 + a_n)$$

Geometric Sequences & Series

$$n^{\text{th}} \text{ term: } a_n = a_1 r^{(n-1)}$$

$$\text{Sum: } s_n = \frac{a_1(1-r^n)}{(1-r)}$$

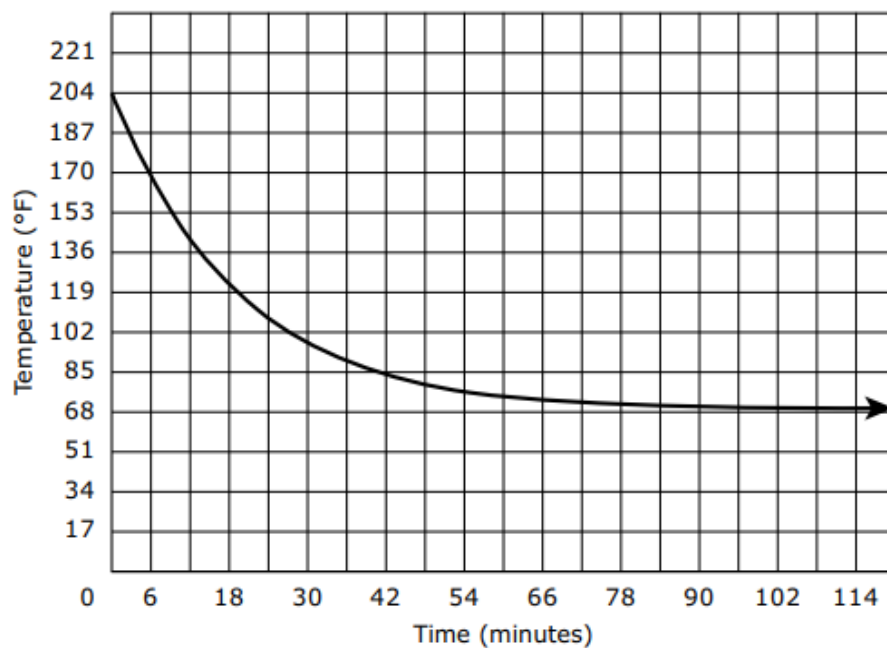
- A 22
- B 23
- C 24
- D 25

Bonus Question

Question 11

Use the information provided to answer Part A and Part B for question 18.

The graph represents the temperature, in degrees Fahrenheit (°F), of tea for the first 120 minutes after it was poured into a cup.



Part A

Based on the graph, what was the temperature of the tea when it was first poured into the cup?

- A. 68°
- B. 114°
- C. 136°
- D. 204°

Part B

Based on the graph, as the number of minutes increased, what temperature did the tea approach?

- A. 68°
- B. 114°
- C. 136°
- D. 204°