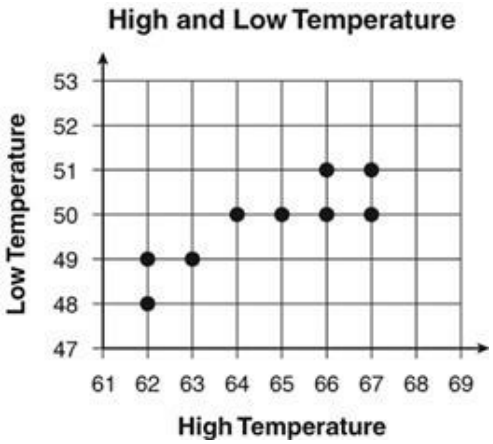
TEST NAME: **SP1 & SP2 Quiz**
TEST ID: **1009806**
GRADE: **08 - Eighth Grade**
SUBJECT: **Mathematics**
TEST CATEGORY: **School Assessment**

Student: _____

Class: _____

Date: _____

1. **The scatterplot below shows the relationship between the high and the low temperatures in Monterey for nine days in May.**



Which statement best describes the relationship?

A. There is a positive correlation.
B. There is a negative correlation.
C. The relationship is constant.
D. There is no relationship.

2. The table below shows the height of several students at different ages.

Student	**Height at 1 year** (inches)	**Height at 14 years** (inches)
1	30.5	66
2	31	70
3	29	65
4	28	63
5	29	64
6	26.5	62.5
7	27	63

Which statement is true about the pattern of association between height at 1 year and height at 14 years?

A. negative with no outliers
B. negative with an outlier
C. positive with no outliers
D. positive with an outlier

3. A scatterplot is said to have a negative correlation. Which statement ***best*** describes this data?

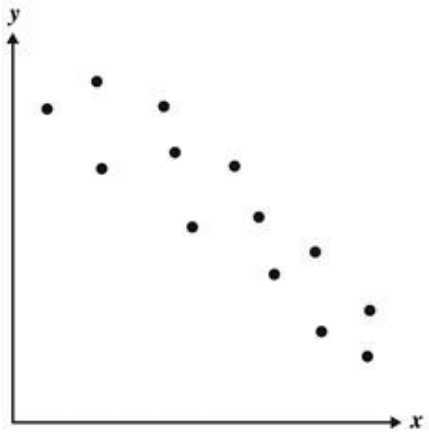
A. As the *x*-values increase, the *y*-values decrease.

B. As the *x*-values increase, the *y*-values increase.

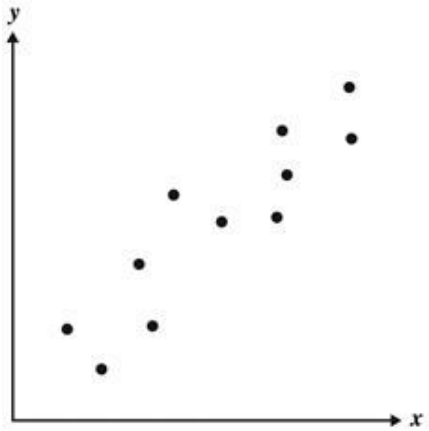
C. As the *x*-values increase, the *y*-values do not change.

4. **Which graph shows a positive correlation?**

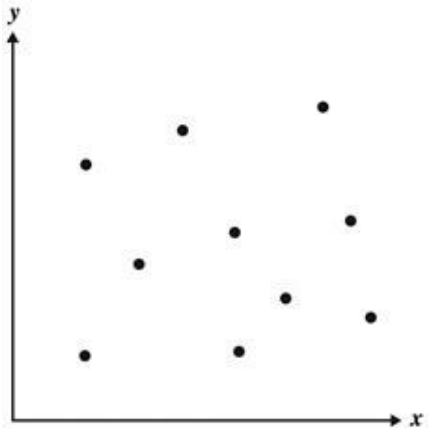
A.



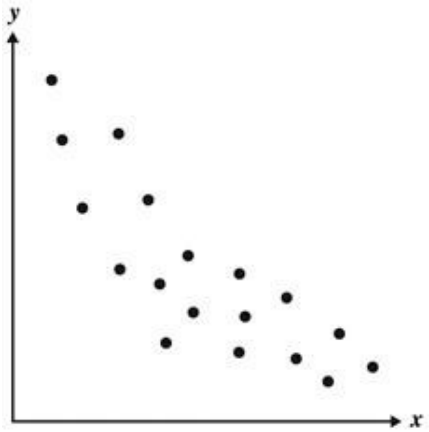
B.



C.

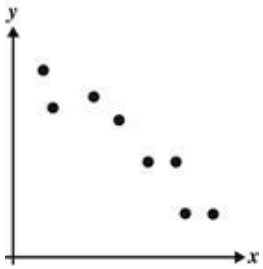


D.

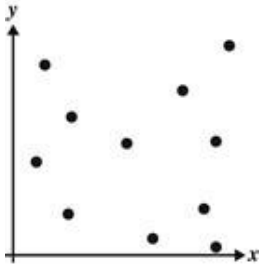


5. **The results of four experiments are shown below. Which results appear to show that there is no relationship between the two variables?**

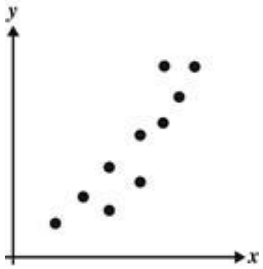
A.



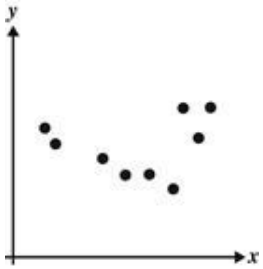
B.



C.

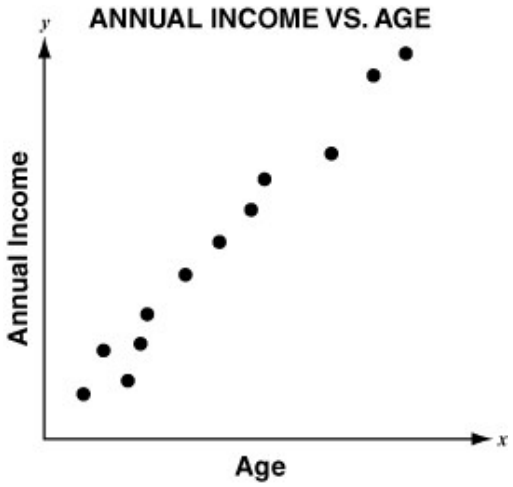


D.

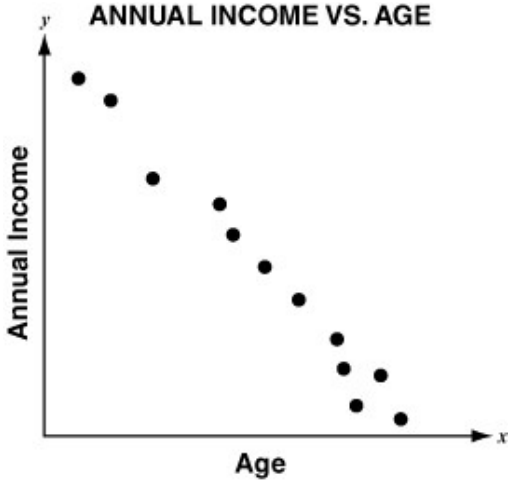


6. There is a positive linear correlation between the annual income and the age of a person before retirement. Which scatter plot **best** represents this situation?

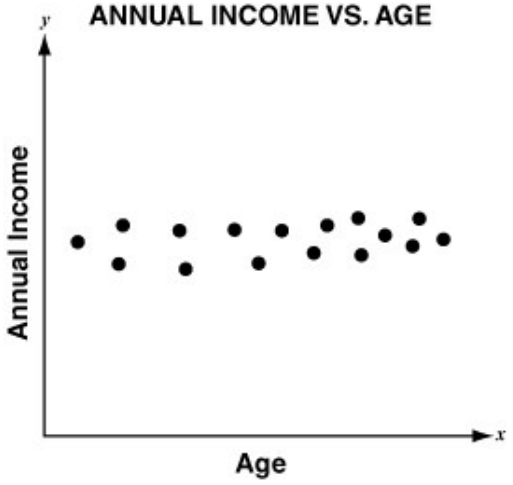
A.


ANNUAL INCOME VS. AGE
y
Annual Income
x
Age

B.


ANNUAL INCOME VS. AGE
y
Annual Income
x
Age

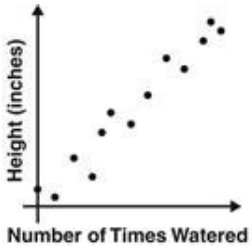
C.


ANNUAL INCOME VS. AGE
y
Annual Income
x
Age

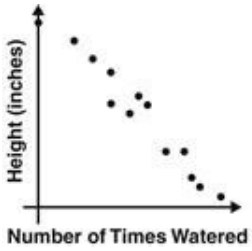
D.

7. **Gary conducted an experiment. He found that the more often he watered sunflower plants, the taller the plants grew. Which graph below shows the same kind of relationship as Gary's data?**

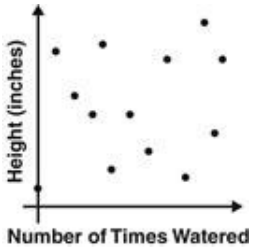
A.



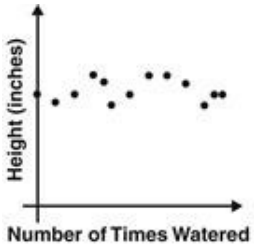
B.



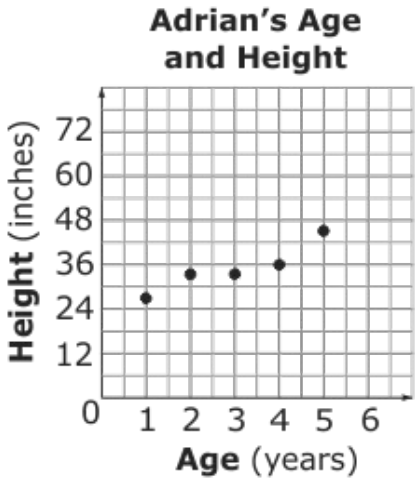
C.



D.



8. The graph shows Adrian's age compared to his height over several years.



Which equation would ***best*** fit the data?

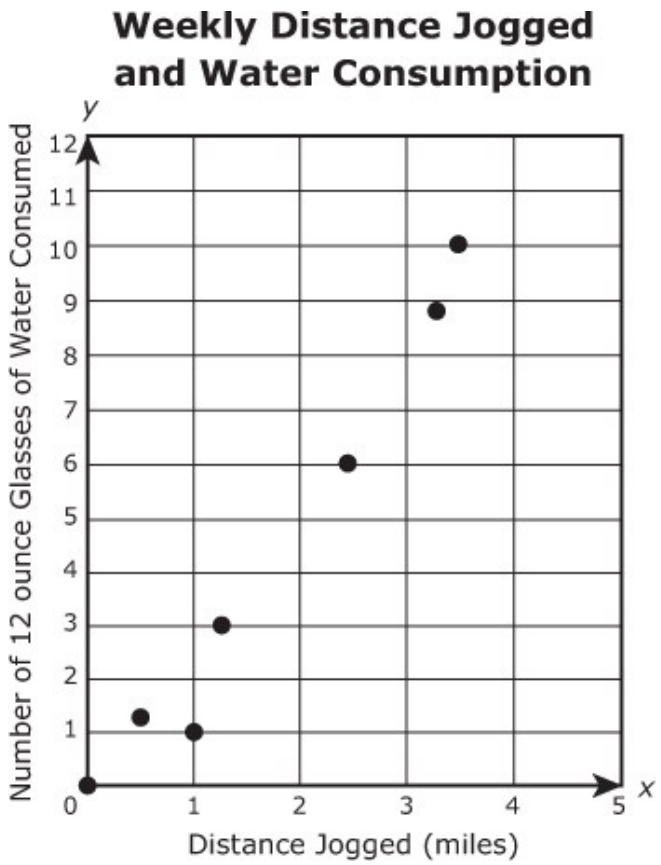
A. $y = x + 20$

B. $y = x + 30$

C. $y = 5x + 20$

D. $y = 5x + 30$

9. The line of best fit was calculated for the following scatter plot.



Which equation **best** represents the line of best fit?

A. $y = \frac{x}{3}$

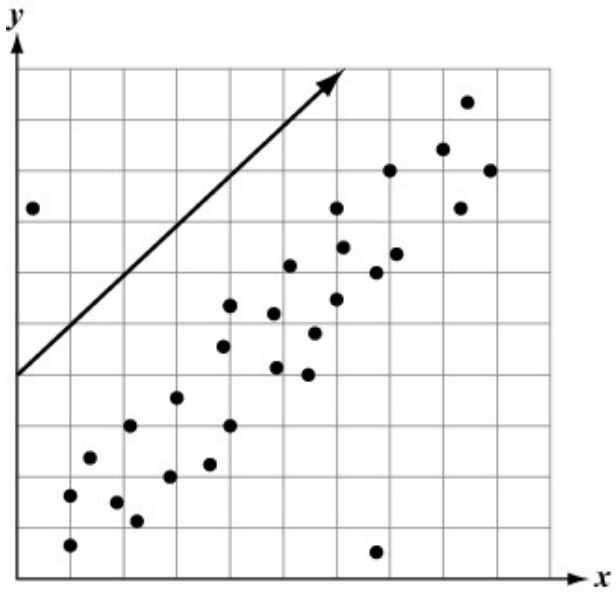
B. $y = \frac{x}{2}$

C. $y = 3x$

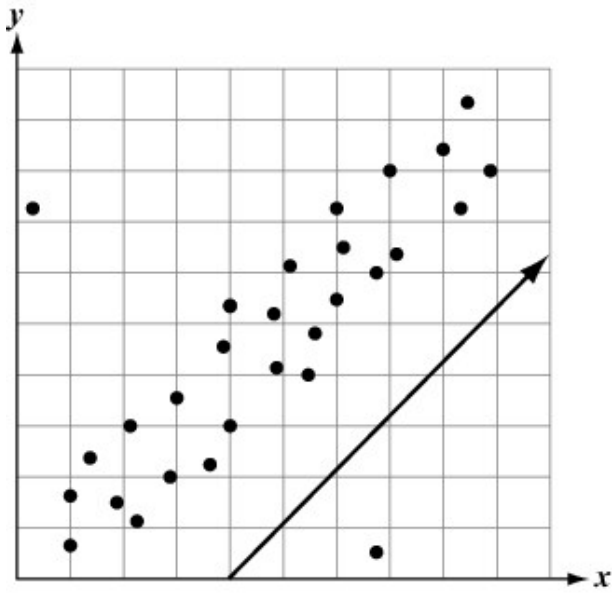
D. $y = 2x$

10. Which scatter plot shows the line that **best** fits this data set?

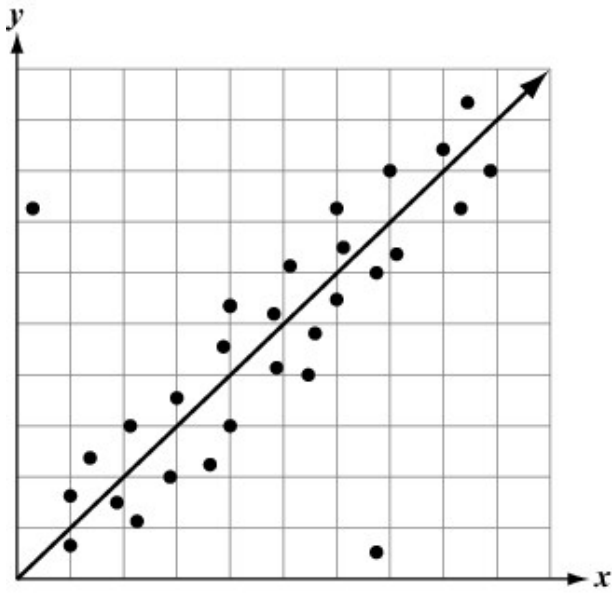
A.



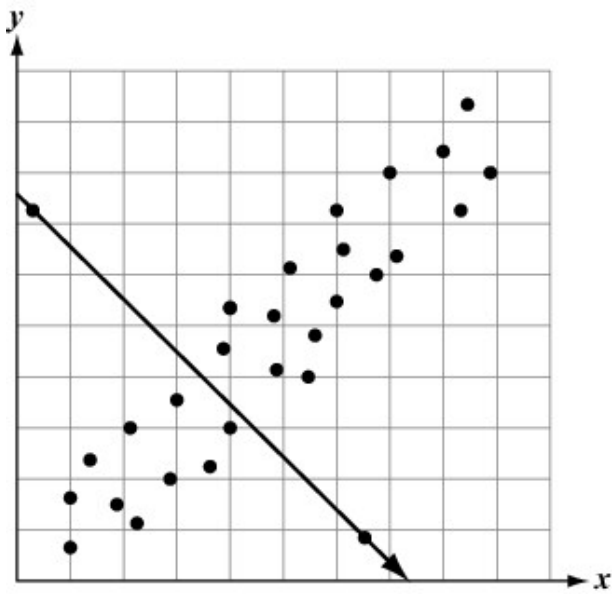
B.



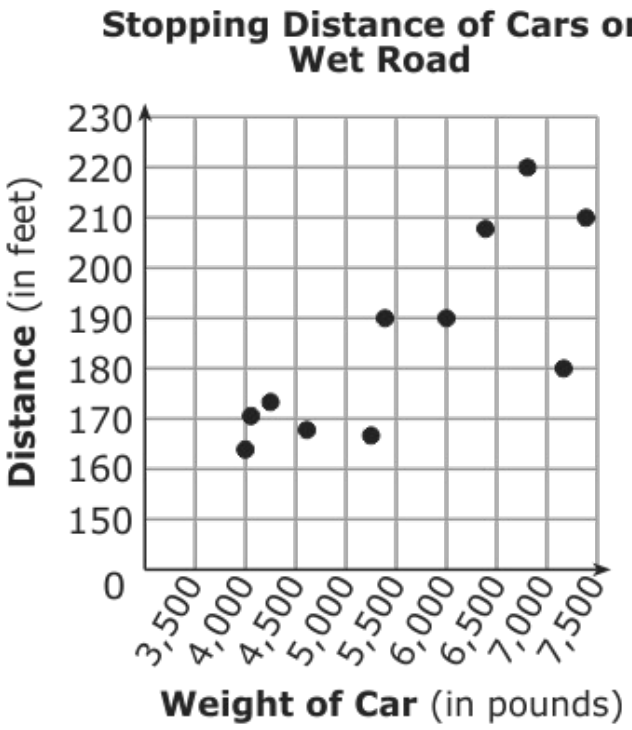
C.



D.



11. The scatterplot shows the stopping distances of a car on a wet road given the weight of the car.



Which equation ***best*** fits the data?

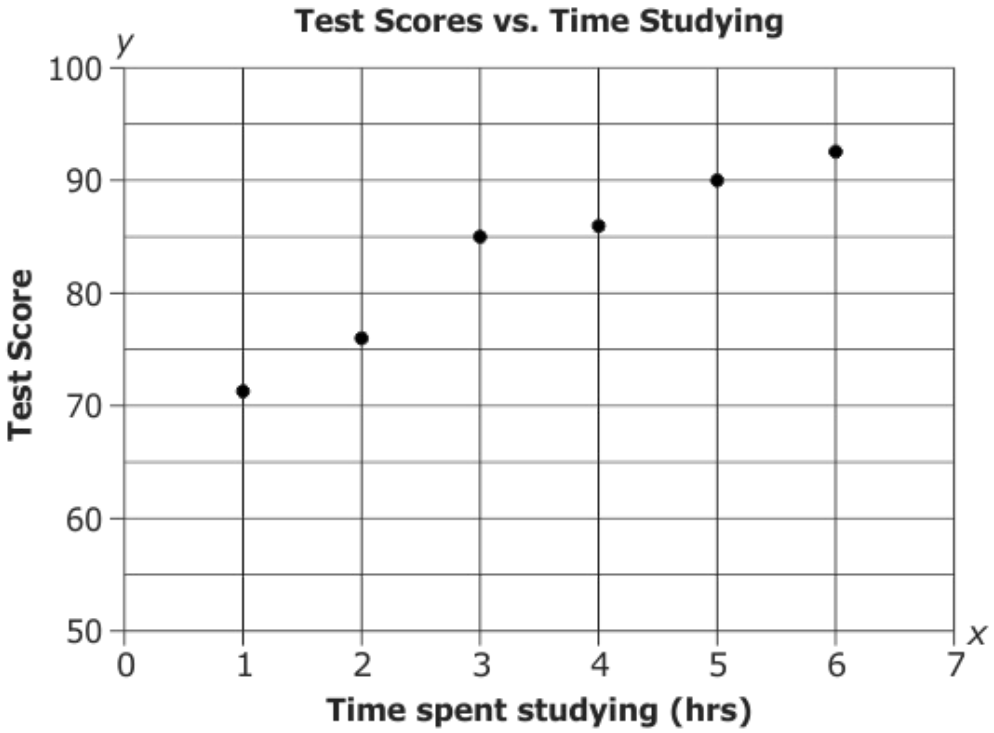
A. $y = 0.01x + 120$

B. $y = 0.04x + 180$

C. $y = -0.01x + 120$

D. $y = -0.04x + 180$

12. The graph below displays the amount of time spent studying for a test and the score received on the test.



Using a linear model, which equation ***best*** fits this data?

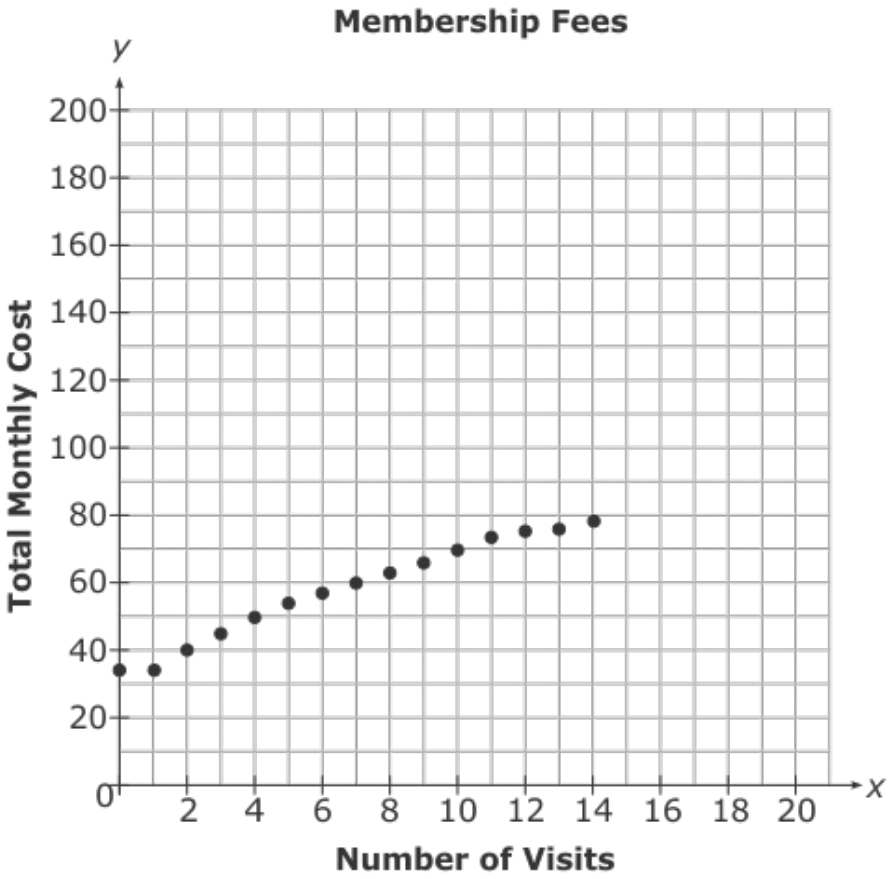
A. $y = 4x + 68$

B. $y = 6x + 60$

C. $y = 8x + 72$

D. $y = 10x + 70$

13. A health club charges a monthly membership fee, plus a fee for the number of monthly visits. The graph shows the total monthly cost, y, given the number of monthly visits, x.



Which equation ***best*** fits this data?

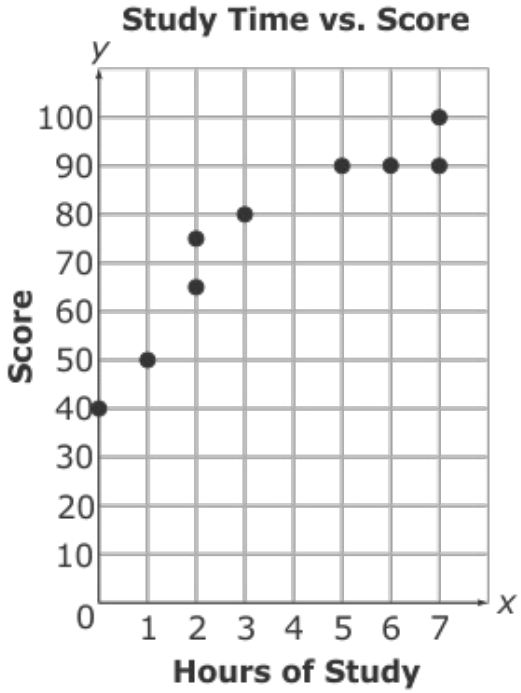
A. $y = -35x + 3.5$

B. $y = -3.5x + 35$

C. $y = 3.5x + 35$

D. $y = 35x + 3.5$

14. The graph below shows the number of hours students studied for a test and the score they received.



Which equation ***best*** fits the data?

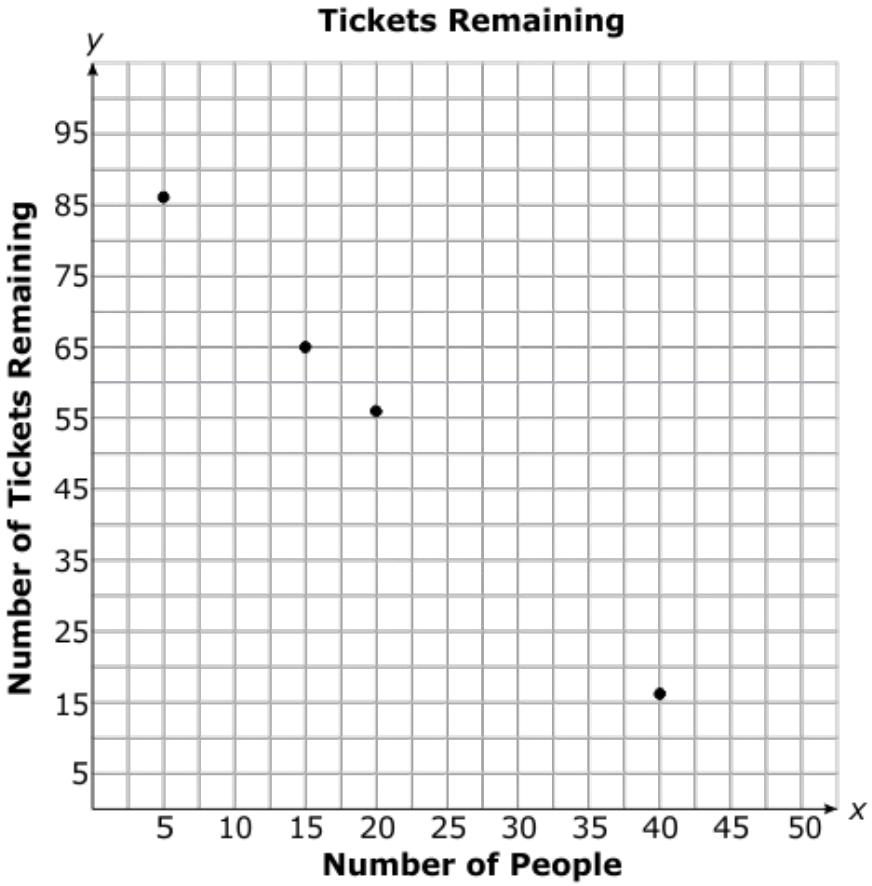
A. $y = 10x + 50$

B. $y = 10x - 50$

C. $y = 50x + 10$

D. $y = 50x - 10$

15. Morgan randomly gave tickets to each person who attended a carnival. The number of tickets she has remaining, y, after handing out tickets to x people is shown on the graph below.



Which equation ***best*** represents the number of tickets remaining, y, after handing out tickets to x people?

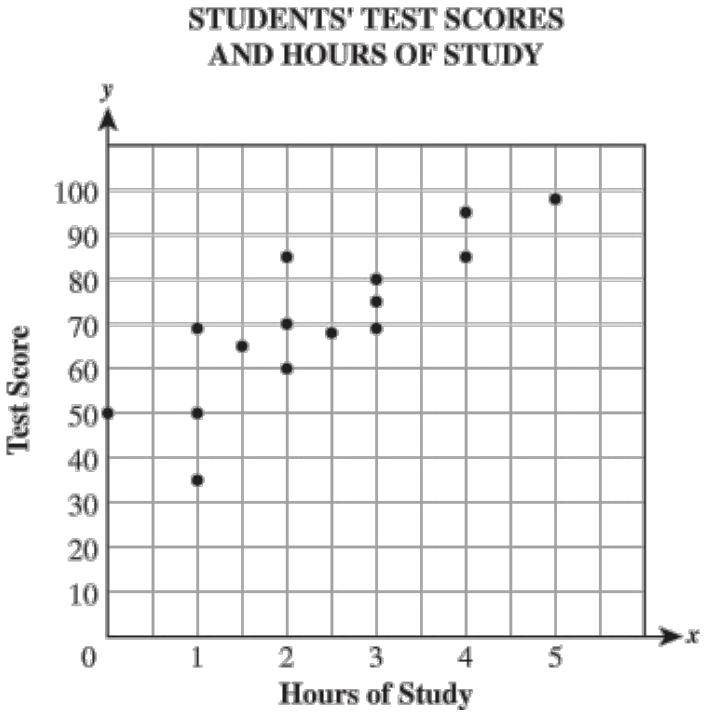
A. $y = 95 - 1.5x$

B. $y = 100 - 2x$

C. $y = 105 - 2.5x$

D. $y = 110 - 3x$

16. Each point on the scatter plot below represents the number of hours a student studied for a test and the student's test scores.



Which equation is the closest approximation to the line of best fit?

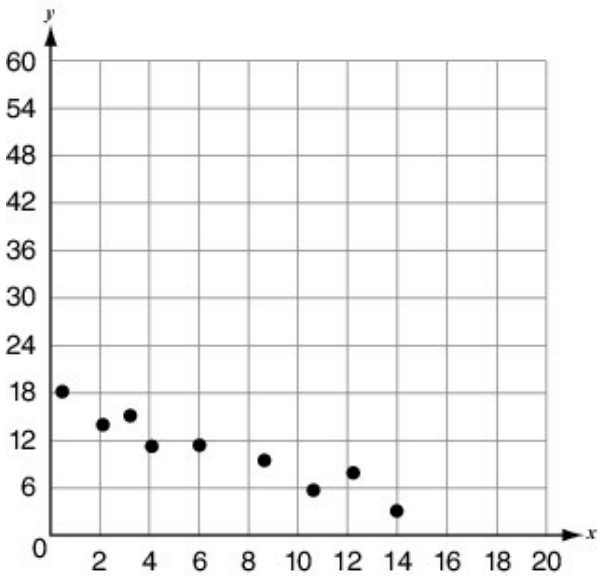
A. $y = -10x + 92$

B. $y = 6x + 59$

C. $y = 10x + 45$

D. $y = 15x + 30$

17. Penelope constructed the scatter plot below.



Which statement describes the function that would **most** appropriately model the data?

A. a straight line with negative slope

B. a straight line with positive slope

C. a curved line that is increasing

D. a curved line that is decreasing