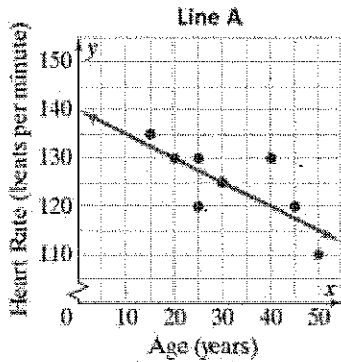


8.SP.2 Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.

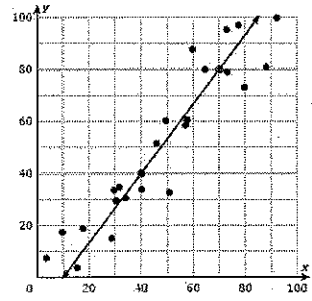
Choose the equation that best models the information in the graph below.



Notice:
y int = 140
& neg. slope

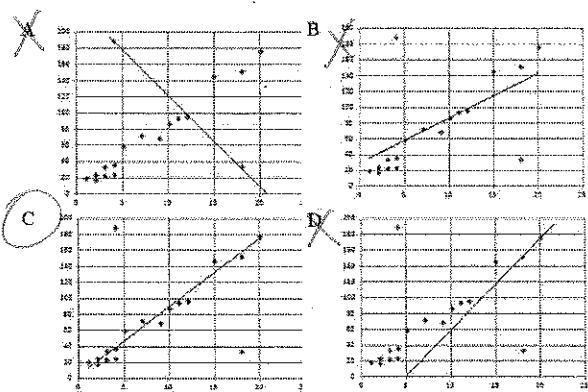
- A. $y=140+1.5x$
- B. $y=140-1.5x$
- C. $y=140x-1.5$
- D. $y=140x+1.5$

What is true of the equation for the trend line shown below?

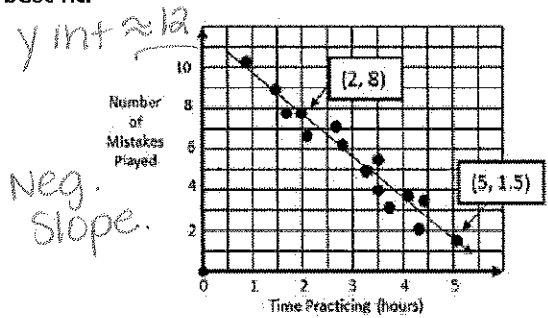


- A. It has a positive slope and a positive y intercept.
- B. It has a positive slope and a negative y intercept.
- C. It has a negative slope and a negative y intercept.
- D. It has a negative slope and a positive y intercept.

Which graph shows the line of best fit for the data?



Ty wants to know if he is improving his skill on the cello. He created the scatter plot and drew a line of best fit.

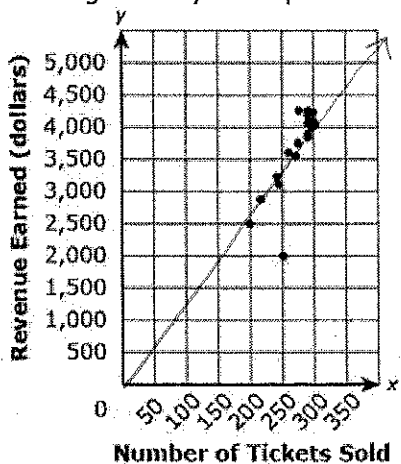


y int \approx 12
Neg. slope.

If he uses the points (2,8) and (5,1.5) from his line, which of the following would be his equation?

- A) $y = -2.17x + 12.3$
 - B) $y = 2.17x + 3.77$
 - C) $y = -0.46x + 9$
 - D) $y = -2.17x - 9.35$
- $m = \frac{-6.5}{3}$

The scatter plot shows the relationship between the number of tickets sold for a play and the revenue- 2.17 earned from ticket sales for each performance. There are 2 different prices for tickets: one price for adults and a significantly lower price for children.



Part A: Are there any outliers in the scatter plot? If so, approximate the coordinates of the point of any outliers and explain why the point is considered an outlier using the information given in the problem.
yes, (250, 2000) is an outlier. It must be mostly childrens tickets resulting in a low revenue.

Part B: If you informally fit a straight line to suggest a linear association, what would likely be the amount of revenue earned for 150 tickets sold? Explain your reasoning.
(\$2,000) because if you follow the line of best fit at $x=150$, $y = \$2000$.