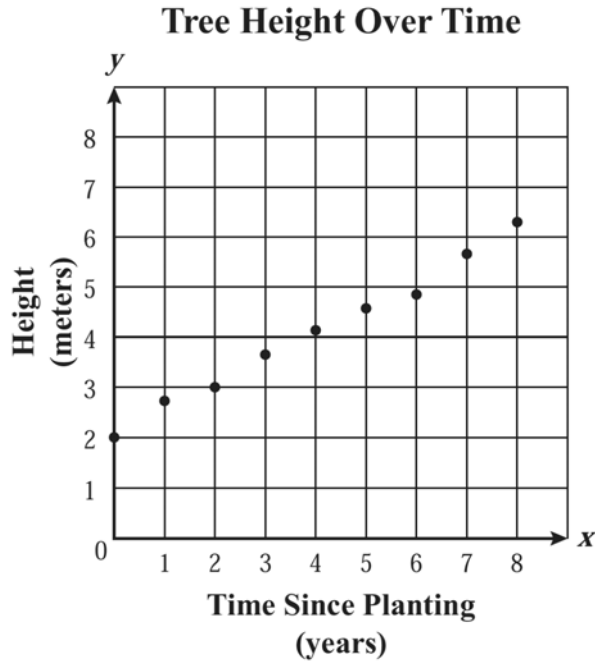


- 1 Cynthia and her father planted a tree in their front yard 8 years ago. The tree was 2 meters in height when it was planted. The scatterplot below shows how the height of the tree increased each year.

Mark your answer here: 1. (A)(B)(C)(D)



Which of the following most closely approximates the equation of the line of best fit for the data points in the scatterplot?

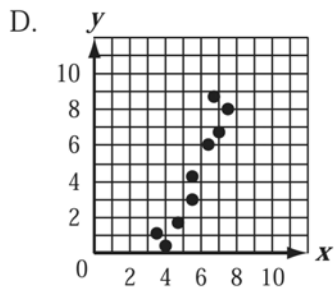
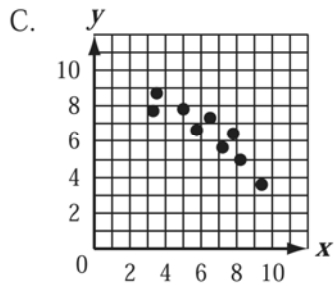
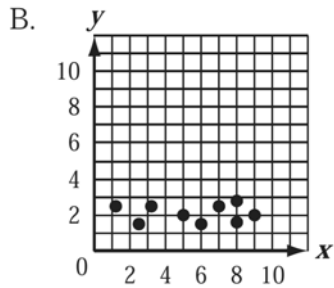
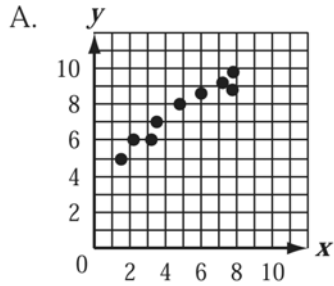
- A.  $y = -2x + 2$
- B.  $y = 2x + 2$
- C.  $y = -\frac{1}{2}x + 2$
- D.  $y = \frac{1}{2}x + 2$



2

Beth drew a scatterplot and then correctly drew the line of best fit for her scatterplot. The line of best fit had a slope of 2. Which of the following is most likely Beth's scatterplot?

Mark your answer here: 2. (A) (B) (C) (D)

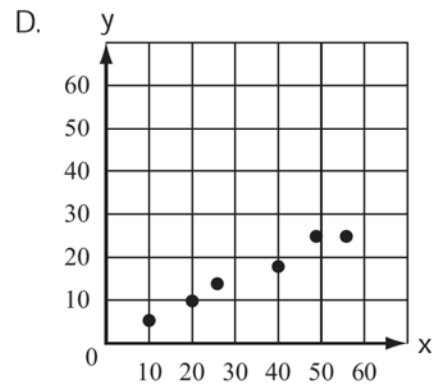
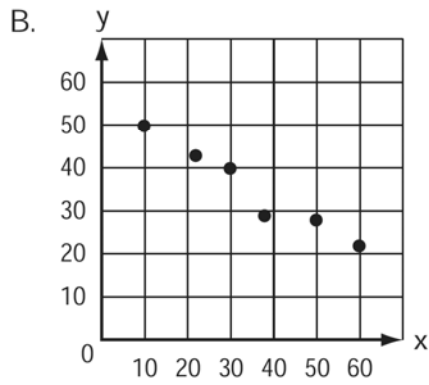
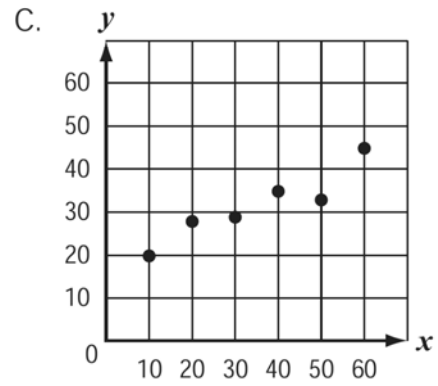
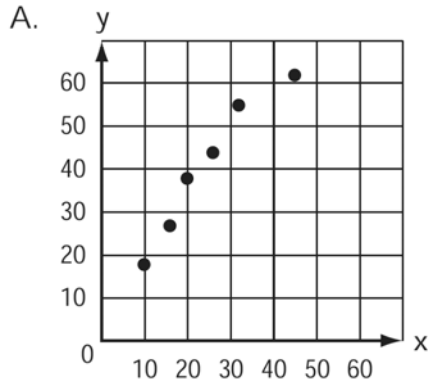


3

Mark your answer here: 3. (A)(B)(C)(D)

Which of the following scatterplots is most likely to have a line of best fit represented by the equation below?

$$y = \frac{1}{2}x$$

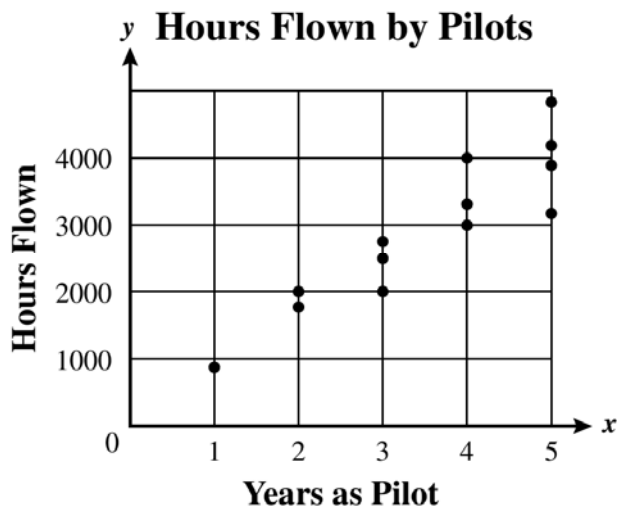


4 Dori asked 13 airplane pilots the following questions:

Mark your answer here: 4. (A)(B)(C)(D)

- “How many years have you been a pilot?”
- “How many hours have you flown?”

The scatterplot below shows the results of her survey.



Which of the following equations best represents the line of best fit for the data in the scatterplot?

- A.  $y = 0.001x$
- B.  $y = -0.001x$
- C.  $y = -850x$
- D.  $y = 850x$



Directions: For the problem below, use a separate piece of paper to write your answers. Your teacher will not count anything you write on this page.

- 5 The workers at a company received a bonus this year. The table below shows the numbers of years some of the workers have been employed at the company and the bonus each worker received.

**Years Employed  
and Bonuses Received**

Worker's Name	Number of Years Employed	Bonus
Martinez	2	\$250
Leung	4	\$500
Sagafi	1	\$100
Chandler	3	\$200
Parker	6	\$600
Vittel	5	\$450

- What is the range of the bonuses in the table? Show or explain how you got your answer.
- On the grid in your Student Answer Booklet, make a scatterplot of the data in the table by plotting points with coordinates  $(x, y)$ , where  $x$  and  $y$  are defined as follows:
  - $x$  = number of years a worker has been employed
  - $y$  = bonus (\$) received by that workerBe sure to label the  $x$ -axis and  $y$ -axis, indicate the scale on each axis, and provide a title for your scatterplot.
- On the grid, draw a line that approximates the line of best fit (trend line) for your scatterplot.
- Use your trend line from part (c) to predict the bonus that a worker who has been employed at the company for 10 years should expect to receive. Show or explain how you got your answer.

