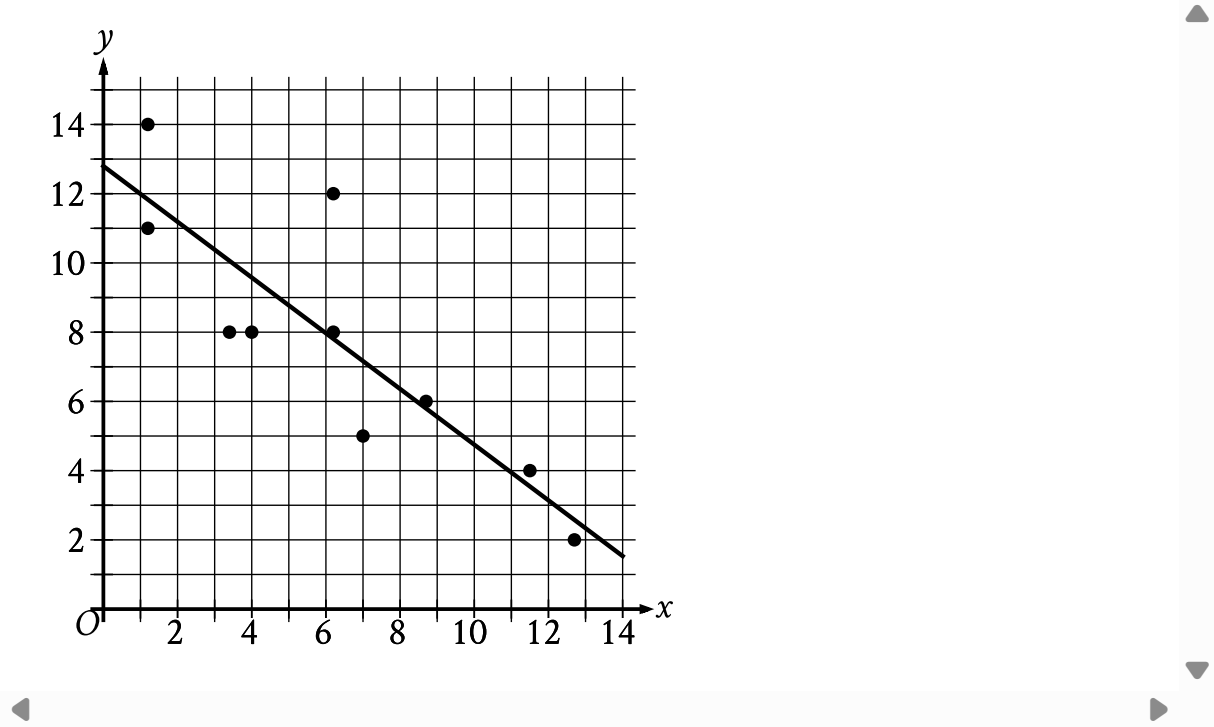


Question ID 14c3d4f9

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: 14c3d4f9

The scatterplot shows the relationship between two variables, x and y . A line of best fit is also shown.



Which of the following is closest to the slope of the line of best fit shown?

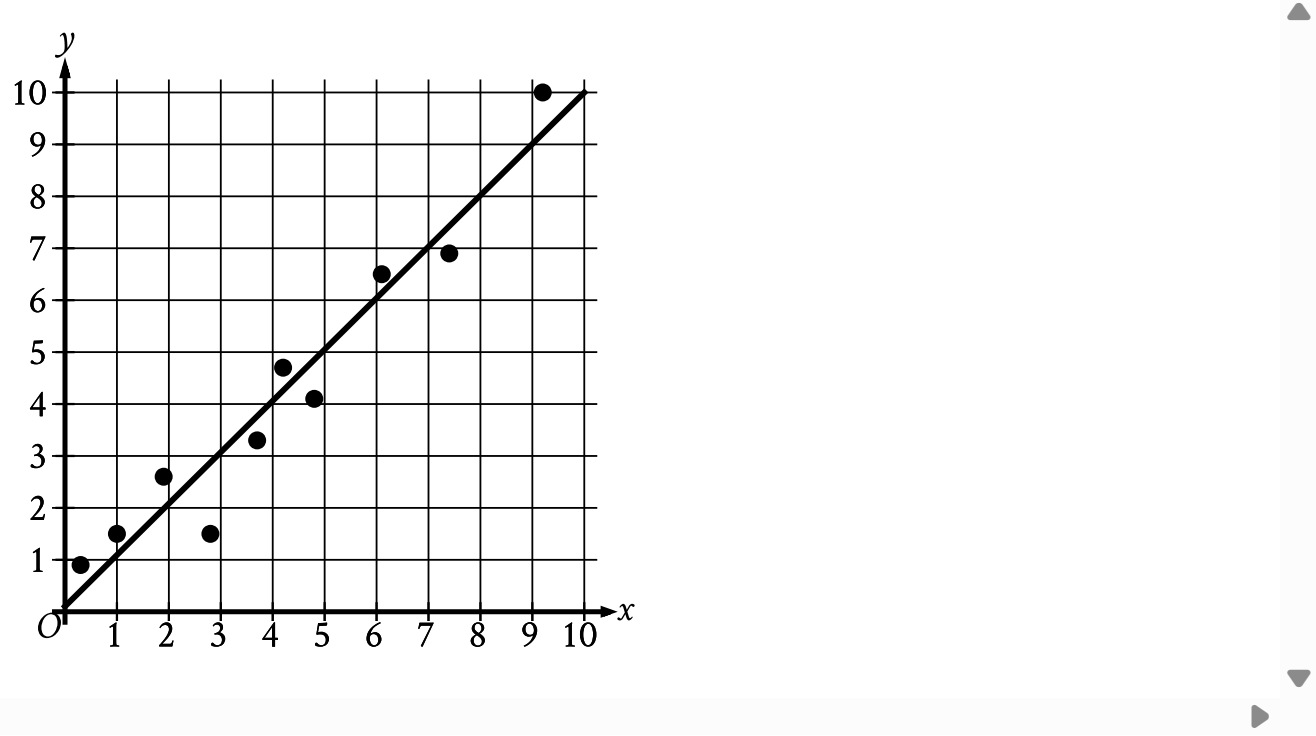
- A. -2.4
- B. -0.8
- C. 0.8
- D. 2.4

Question ID 54380bb2

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: 54380bb2

The scatterplot shows the relationship between two variables, x and y . A line of best fit for the data is also shown.



For how many of the **10** data points is the actual y -value greater than the y -value predicted by the line of best fit?

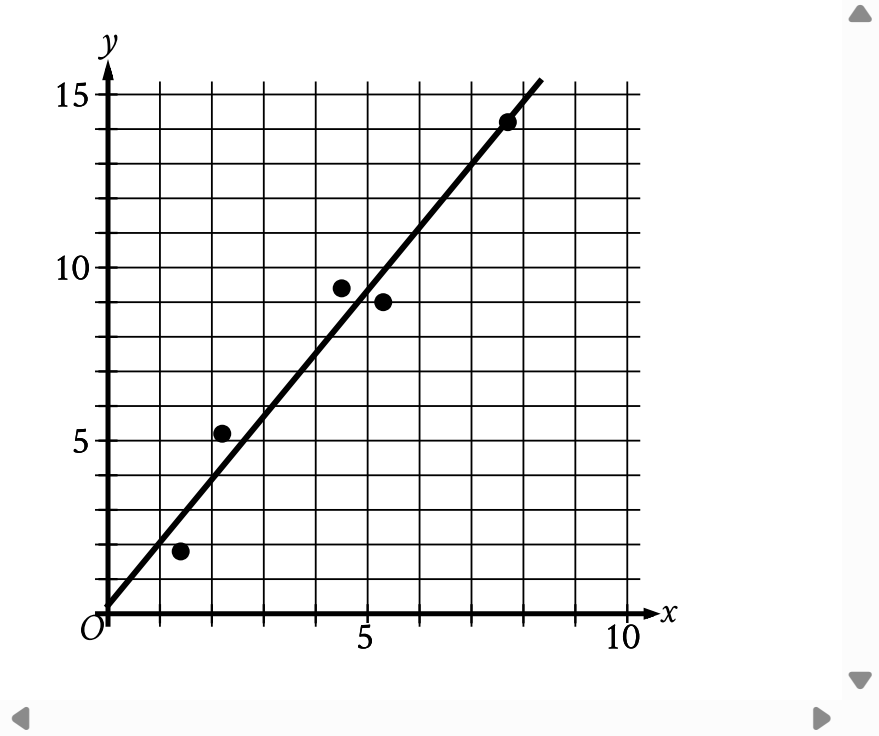
- A. 3
- B. 4
- C. 6
- D. 7

Question ID bd2e4f46

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: bd2e4f46

In the given scatterplot, a line of best fit for the data is shown.



Which of the following is closest to the slope of the line of best fit shown?

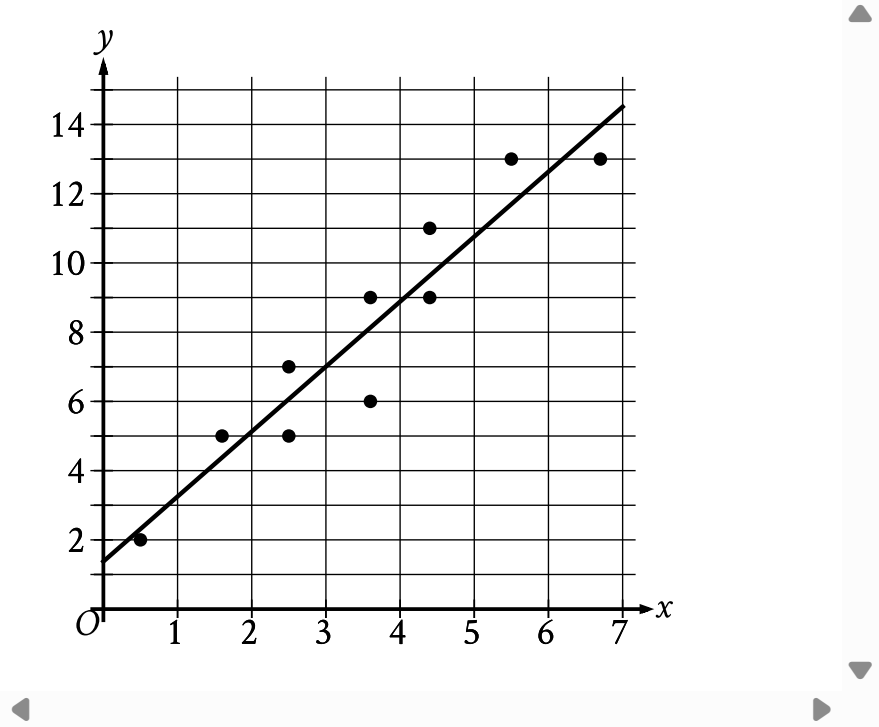
- A. 0.2
- B. 0.7
- C. 1.8
- D. 2.6

Question ID 0346405a

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: 0346405a

In the given scatterplot, a line of best fit for the data is shown.



Which of the following is closest to the slope of the line of best fit shown?

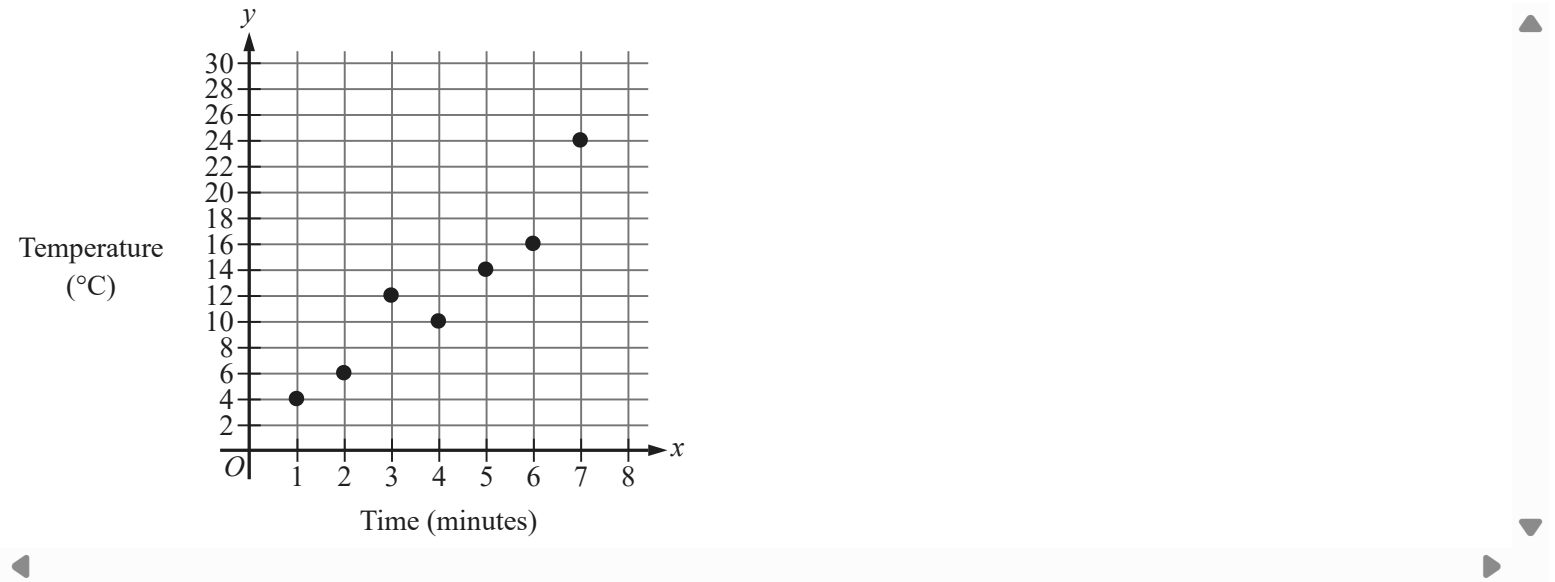
- A. 0
- B. $\frac{1}{2}$
- C. 1
- D. 2

Question ID 171007e3

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: 171007e3

During a study, the temperature, **in degrees Celsius ($^{\circ}\text{C}$)**, of the air in a chamber was recorded to the nearest integer at certain times. The scatterplot shows the recorded temperature **y , in $^{\circ}\text{C}$** , of the air in the chamber **x minutes** after the start of the study.



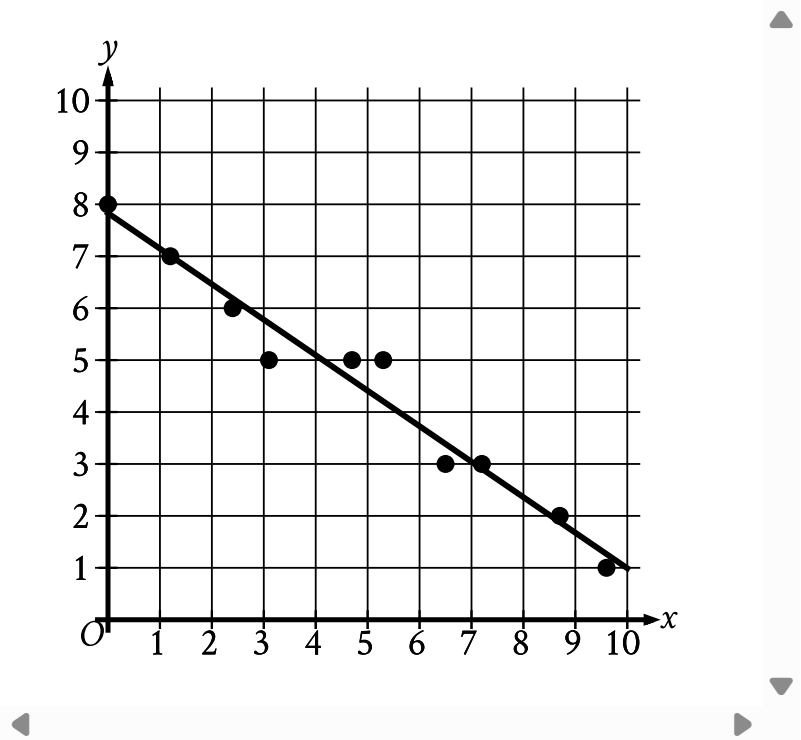
What was the average rate of change, **in $^{\circ}\text{C}$ per minute**, of the recorded temperature of the air in the chamber from **$x = 5$ to $x = 7$** ?

Question ID 8dbc9c80

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: 8dbc9c80

In the given scatterplot, a line of best fit for the data is shown.



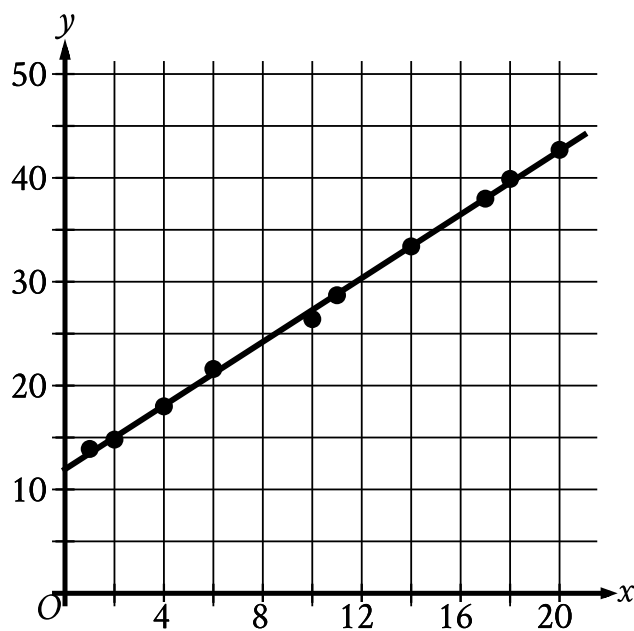
Which of the following is closest to the slope of this line of best fit?

- A. 7
- B. 0.7
- C. −0.7
- D. −7

Question ID d978eef4

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: d978eef4



The scatterplot shows the relationship between two variables, x and y , for data set E. A line of best fit is shown. Data set F is created by multiplying the y -coordinate of each data point from data set E by **3.9**. Which of the following could be an equation of a line of best fit for data set F?

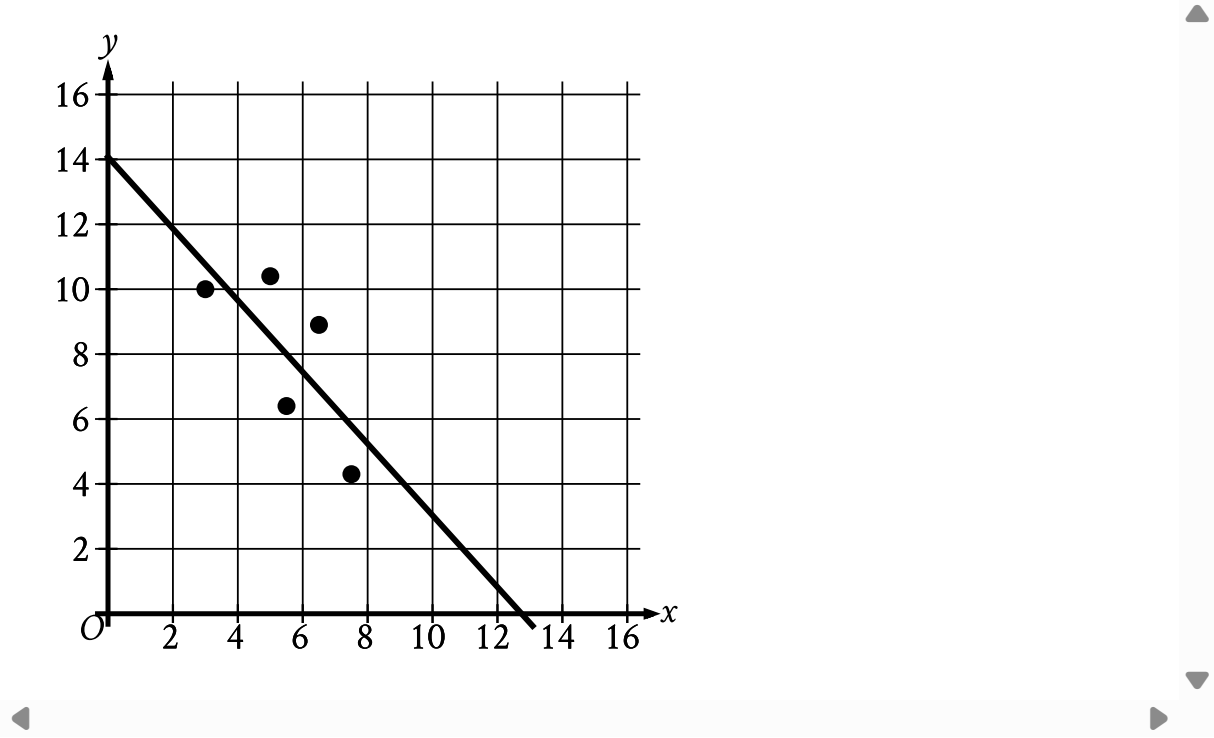
- A. $y = 46.8 + 5.9x$
- B. $y = 46.8 + 1.5x$
- C. $y = 12 + 5.9x$
- D. $y = 12 + 1.5x$

Question ID cbf73e2a

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: cbf73e2a

The scatterplot shows the relationship between two variables, x and y . A line of best fit is also shown.



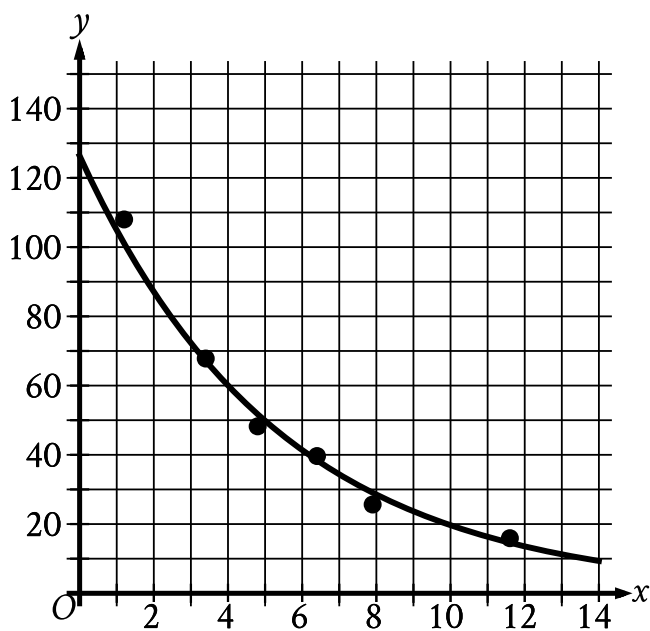
Which of the following is closest to the slope of this line of best fit?

- A. **−3.3**
- B. **−1.1**
- C. **1.1**
- D. **3.3**

Question ID 5d546c0e

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: 5d546c0e



The scatterplot shows the relationship between two variables, x and y . An equation for the exponential model shown can be written as $y = a(b)^x$, where a and b are positive constants. Which of the following is closest to the value of b ?

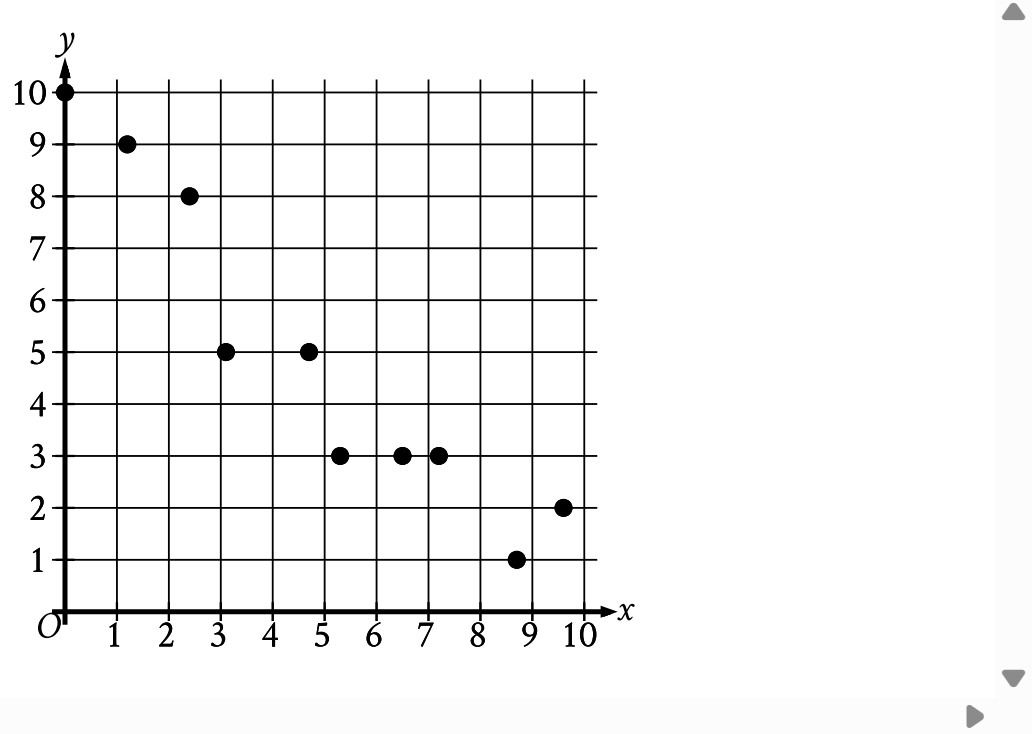
- A. 0.83
- B. 1.83
- C. 18.36
- D. 126.35

Question ID fab4c69e

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: fab4c69e

The scatterplot shows the relationship between two variables, x and y .



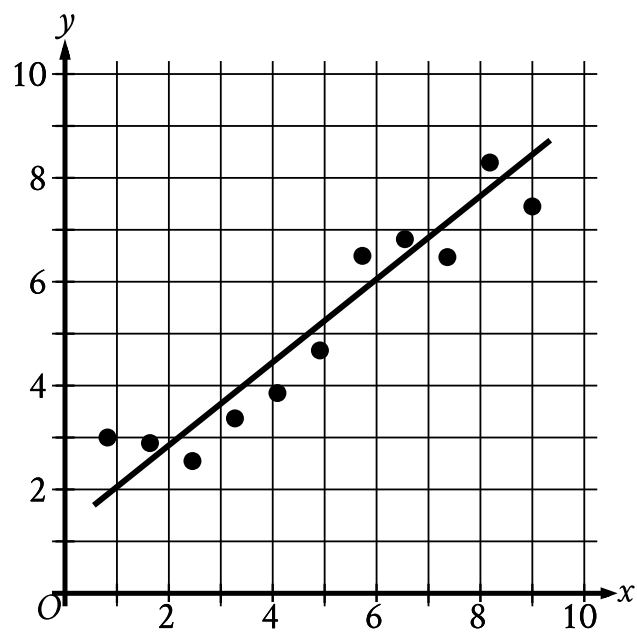
Which of the following equations is the most appropriate linear model for the data shown?

- A. $y = 0.9 + 9.4x$
- B. $y = 0.9 - 9.4x$
- C. $y = 9.4 + 0.9x$
- D. $y = 9.4 - 0.9x$

Question ID f4026706

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: f4026706

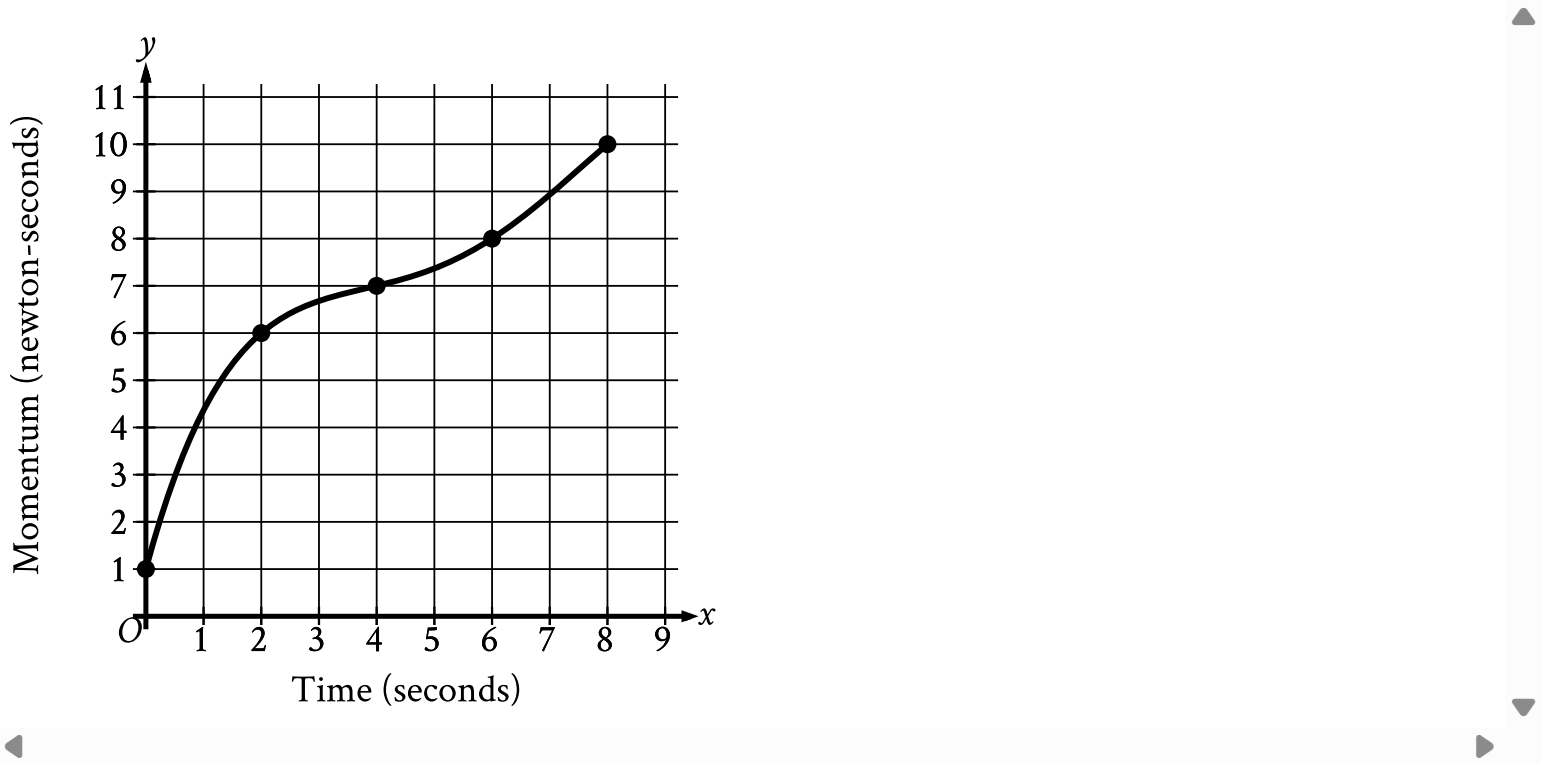


The scatterplot shows the relationship between two variables, x and y . A line of best fit is also shown. For how many of the 11 data points does the line of best fit predict a greater y -value than the actual y -value?

Question ID b8f73cba

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: b8f73cba



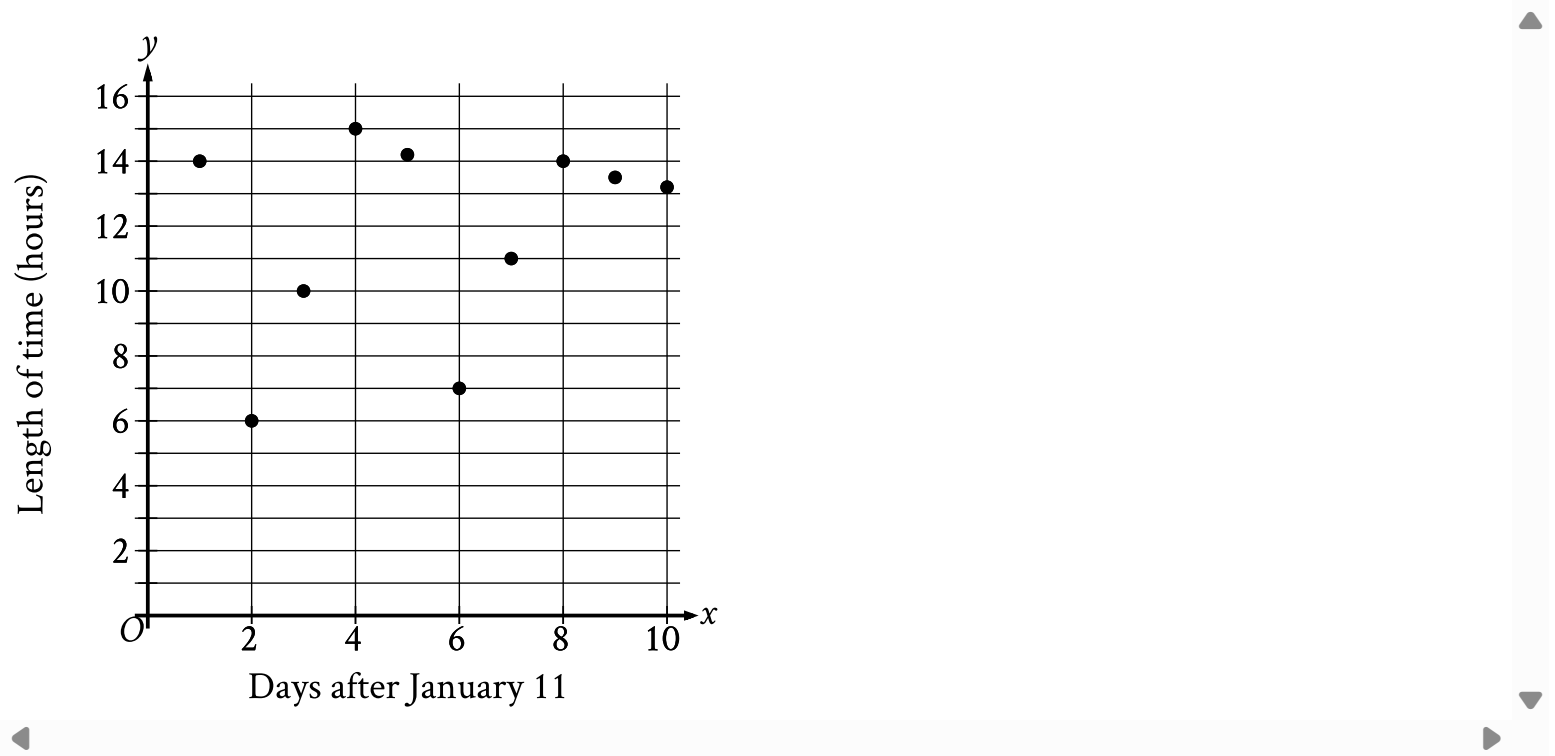
The graph shows the momentum y , in newton-seconds, of an object x seconds after the object started moving, for $0 \leq x \leq 8$. What is the average rate of change, in newton-seconds per second, in the momentum of the object from $x = 2$ to $x = 6$?

Question ID defbe7d4

Assessment	Test	Domain	Skill	Difficulty
PSAT 8/9	Math	Problem-Solving and Data Analysis	Two-variable data: Models and scatterplots	

ID: defbe7d4

The scatterplot shows the relationship between the length of time y , in hours, a certain bird spent in flight and the number of days after January 11, x .



What is the average rate of change, in hours per day, of the length of time the bird spent in flight on January 13 to the length of time the bird spent in flight on January 15?