# Interpreting Slopes and $y$-Intercepts of Lines of Best Fit 

Read each scenario and look at the scatter plot and given line of best fit. Then answer the questions.


1. At the Junior Surf Championship, judges scored each surfer's performance from 0 to 10. The scatter plot shows the relationship between the average number of hours spent training each day in the week leading up to the competition and the competition scores.

a. Write the equation of the line of best fit in slope-intercept form.
b. What is the slope? $\qquad$ What does the slope mean in terms of the scenario?
c. What is the $y$-intercept? $\qquad$ What does the $y$-intercept mean in terms of the scenario?
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2. Dr. Lee led a study about the effect of screen time on the time it takes to fall asleep. The scatter plot below shows the average number of minutes of screen time study participants had in the hour leading up to bed and the average number of minutes it took them to fall asleep.

a. Write the equation of the line of best fit in slope-intercept form. $\square$
b. What is the slope? What does the slope mean in terms of the scenario?
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$\qquad$
c. What is the $y$-intercept? $\qquad$ What does the $y$-intercept mean in terms of the scenario?
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Keep going! Read each scenario and look at the scatter plot and given line of best fit. Then answer the questions.
3. A group of Gilford Middle School students took a survey about how they spend their time. They answered the survey questions based on their activities from the previous day. The scatter plot shows the relationship between the amount of time students spent outside and the amount of time they spent playing video games.

a. Write the equation of the line of best fit in slope-intercept form. $\square$
b. What is the slope? What does the slope mean in terms of the scenario?
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c. What is the $y$-intercept? $\qquad$ What does the $y$-intercept mean in terms of the scenario?
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Ч. Jolly Paws Animal Rescue hosts adoption events to help find homes for dogs. The scatter plot shows the relationship between the number of adoption events they hold each year and the number of dogs remaining at the animal rescue at the end of the year.

a. Write the equation of the line of best fit in slope-intercept form. $\square$
b. What is the slope? What does the slope mean in terms of the scenario?
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c. What is the $y$-intercept? $\qquad$ What does the $y$-intercept mean in terms of the scenario?
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