Unit 3, Lesson 5

# Goodness of Fit

Let's explore lines and their goodness of fit for data.

## 5.1 What's the Rate?

Each situation can be modeled using a linear equation. Describe the rate of change for each situation.

1. Andre started his no-interest savings account with $1,000. He made the same deposit each week, and there was $1,600 in the account after 6 weeks. How much money did Andre deposit each week?

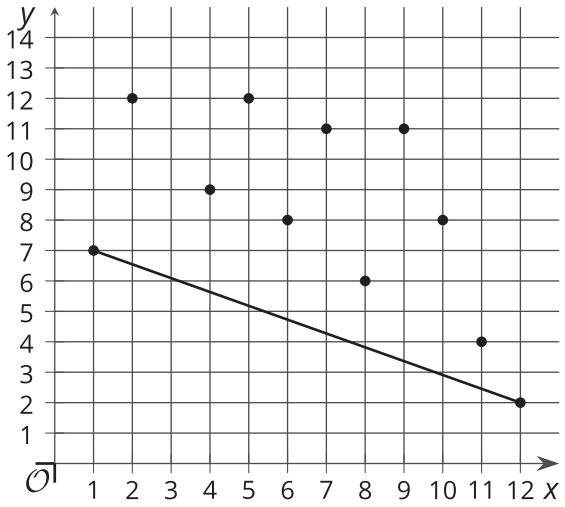


2. Kiran started with $748 in his checking account. After 4 weeks of spending the same amount each week, he had $716 left. How much money did Kiran spend each week?

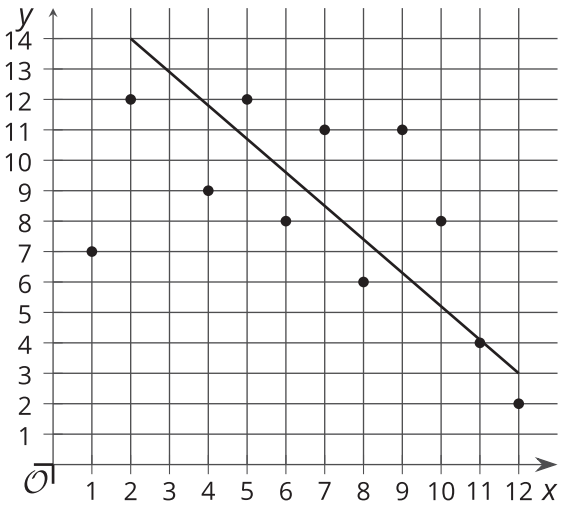
# 5.2 Goodness of Fit

Here are 3 copies of the same scatter plot. Each student tries to draw a line that models the data well.

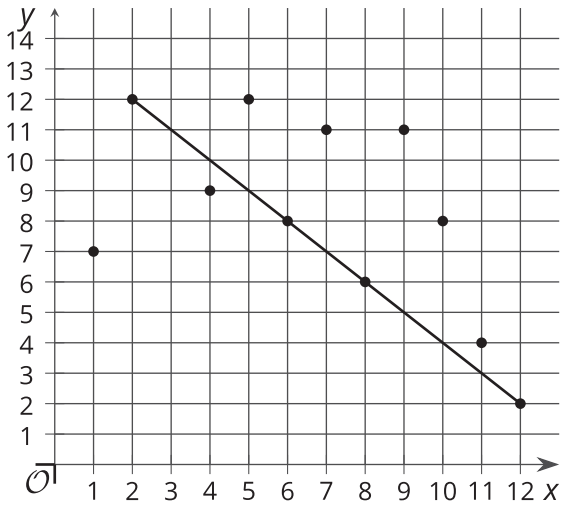
- Noah says his line fits the data well because the line connects the leftmost point to the rightmost point.




- Lin says her line fits the data well because the points are somewhat evenly arranged around the line with about half the points above the line and half the points below the line.




- Andre says his line fits the data well because it passes directly through as many points as possible.

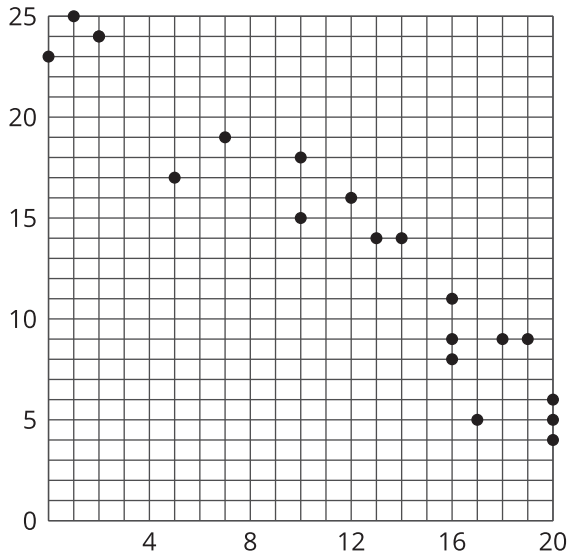



Do you agree with any of these students? Explain your reasoning.

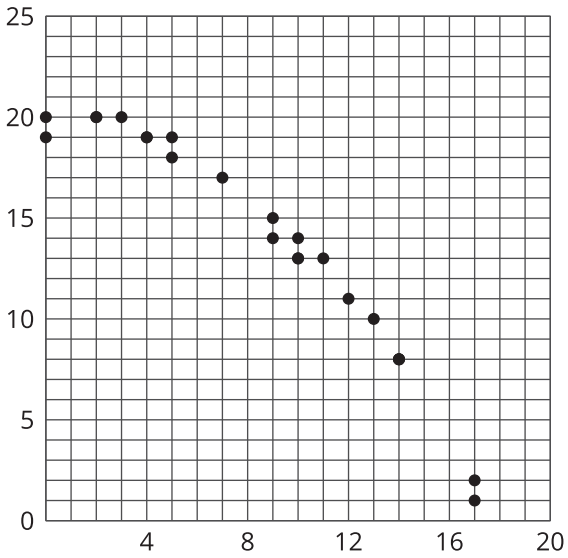
# 5.3 What Fits?

1. Look at the scatter plots and figure out which one is best modeled by a linear model.

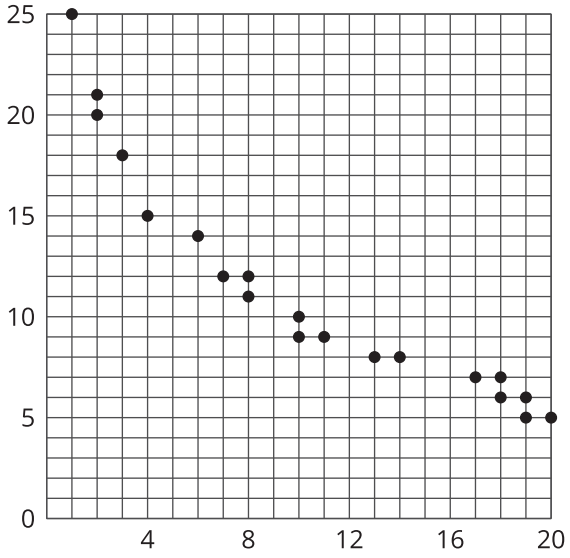
**A**




**B**




**C**




2. Draw a linear model that fits the data well on the appropriate scatter plot. Compare your line with a partner's. If your lines are different, determine which line is the better fit line.