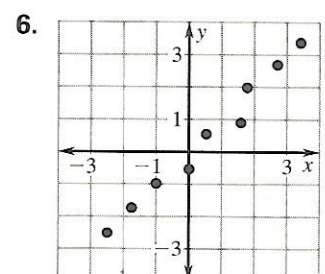
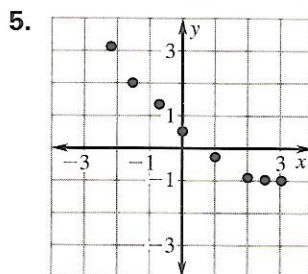
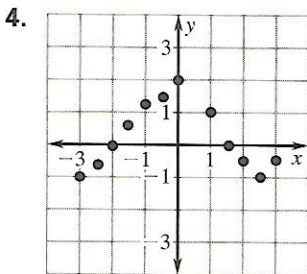
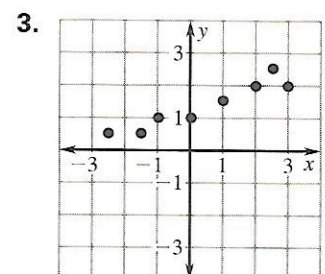
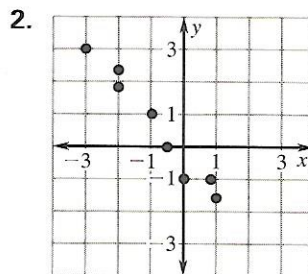
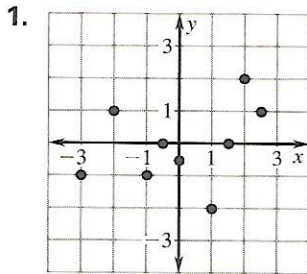


Practice A

For use with pages 316–322

Tell whether it is reasonable for the graph to be represented by a linear model.



7. Explain the difference between linear interpolation and linear extrapolation.
8. Explain how to decide whether a data set can be represented by a linear model.

Savings Account In Exercises 9 and 10, use the following information.

Let $y = 55x + 126$ represent the amount of money (in dollars) in your savings account from 1988 to 1998. Let x represent the number of years since 1988.

9. Use linear interpolation to predict the amount of money in your savings account for 1992.
10. Use linear extrapolation to predict the amount of money in your savings account for 2000.

Movie Prices In Exercises 11 and 12, use the following information.

Let $y = 0.25x + 4$ represent the cost of going to a movie from 1985 to 1995. Let x represent the number of years since 1985.

11. Use linear interpolation to predict the cost of going to the movies in 1991.
12. Use linear extrapolation to predict the cost of going to the movies in 1997.

Skim Milk Consumption In Exercises 13–16, use the table, which shows the number of pounds of skim milk, S , consumed per person in the United States in year t .

t	S
1980	26.9
1985	27.4
1990	42.8
1992	46.2
1995	53.9
1996	55.7

13. Make a scatter plot of the pounds of skim milk consumed in terms of the year t . Let t represent the number of years since 1980.
14. Write a linear model for this data.
15. Use the linear model to estimate the number of pounds consumed in 1994.
16. Use the linear model to estimate the number of pounds consumed in 1999.