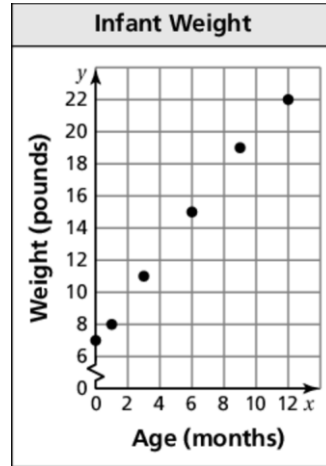## 9.2 Practice A

1. The scatter plot shows the weights $y$ of an infant from birth through $x$ months.

   **a.** At what age did the infant weigh 11 pounds?

   **b.** What was the infant's weight at birth?

   **c.** Draw a line that you think best approximates the points.

   **d.** Write an equation for your line.

   **e.** Use the equation to predict the weight of the infant at 18 months.

   **f.** Does the data show a *positive*, a *negative*, or *no* relationship?

**Infant Weight**

2. The table shows the numbers of losses $y$ a gamer has $x$ weeks after getting a new video game.

| Week, x | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---------|----|----|----|---|---|---|---|
| Losses, y | 15 | 12 | 10 | 7 | 6 | 3 | 1 |

   **a.** Make a scatter plot of the data.

   **b.** Draw a line of fit.

   **c.** Write an equation of the line of fit.

   **d.** Does the data show a *positive*, a *negative*, or *no* relationship?

   **e.** Interpret the relationship.

3. The scatter plot shows the relationship between the numbers of girls and the numbers of boys in 10 different classrooms.
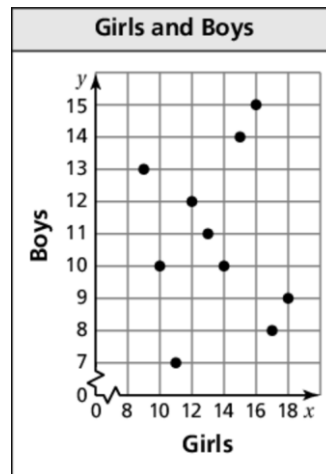
   **a.** What type of relationship, if any, does the data show?

   **b.** Is it possible to find the line of fit for the data? Explain.

   **c.** Is it reasonable to use this scatter plot to predict the number of boys in the classroom based on the number of girls? Explain.

**Girls and Boys**

## 9.2  Practice B

**1.** The scatter plot shows the costs $y$ of bottles containing $x$ fluid ounces of juice.

**Cost of Juice**



**a.** How much does a gallon of juice cost?

**b.** How many fluid ounces of juice can you purchase for $3?

**c.** Draw a line that you think best approximates the points.

**d.** Write an equation for your line.

**e.** Use the equation to predict the cost of a 256-fluid ounce container of juice.

**f.** Does the data show a *positive*, a *negative*, or *no* relationship?
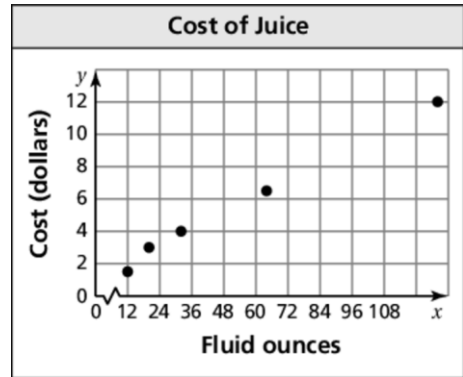
**2.** The table shows the mortgage interest rates $y$ at a local bank for the years 2000 through 2008.

| Year since 2000, $x$ | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|---|
| Rate (%), $y$ | 7.6 | 6.8 | 6.2 | 6.0 | 5.2 | 5.8 | 6.1 | 5.9 | 5.5 |
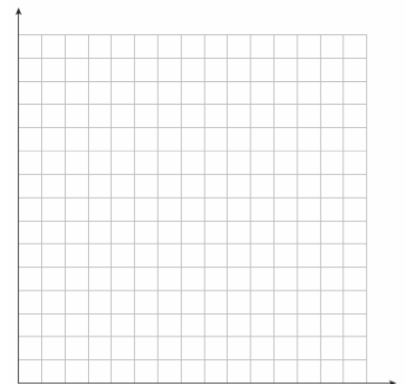
**a.** Make a scatter plot of the data.

**b.** Draw a line of fit.

**c.** Write an equation of the line of fit.

**d.** Use the equation to predict the mortgage interest rate for the year 2010.

**e.** Does the data show a *positive*, a *negative*, or *no* relationship?

**f.** Interpret the relationship.

**3.** The scatter plot shows the relationship between the age of an individual $x$ and the cost of admission $y$ to a show.

   **a.** What type of relationship does the data show?

   **b.** Draw a line of fit.

   **c.** Write an equation of the line of fit.

   **d.** Interpret the relationship.

**Cost of Admission**