Name _____ Class _____ Date _____

Reteaching 10-1

Scatter Plots

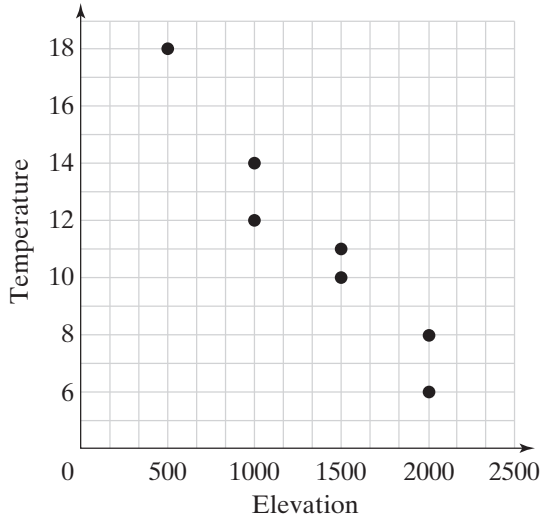
You can make a scatterplot to show data.

Elevation (m)	500	1000	1000	1500	1500	2000	2000
Temperature (°C)	18	14	12	11	10	8	6

Step 1 Use the horizontal axis to represent elevation. The elevation ranges from 500 to 2,000. A reasonable scale is 0 to 2,000 where each grid line increases by 500.

Step 2 Use the vertical axis to represent the temperature. The temperature ranges from 18°C to 6°C. A reasonable scale is 0 to 20 where each grid line increases by 2°C.

Step 3 Plot the data. For example, at an elevation of 500 m, the temperature is 18°C. Plot (500, 18).



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1. What information is shown on the horizontal axis of the scatter plot?

   number of hours spent babysitting

2. What information is shown on the vertical axis of the scatter plot?

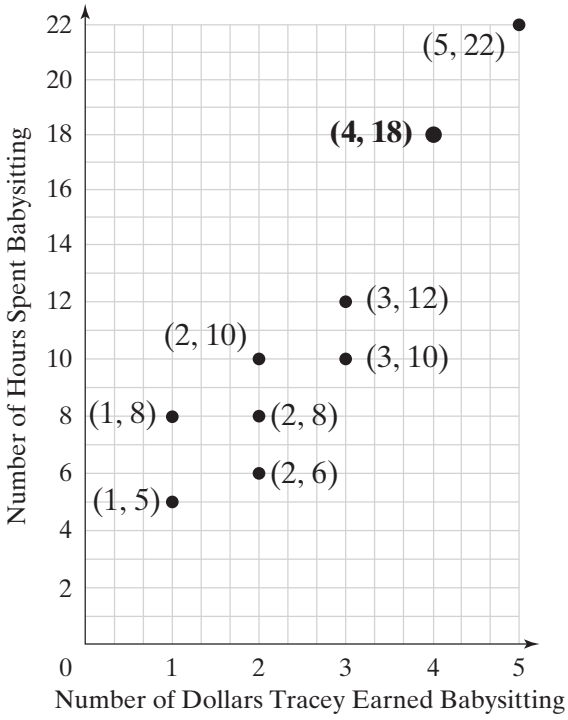
   number of dollars earned

3. What does the highlighted point represent?

   Tracey earned $18 for babysitting for 4 hours.

4. How many hours did she have to babysit to earn $22?

   5 hours



Name _____ Class _____ Date _____

Reteaching 10-2

Analyzing Scatter Plots

Example Make a scatter plot for the data below.

① Choose a scale along each axis to represent the two sets of data.

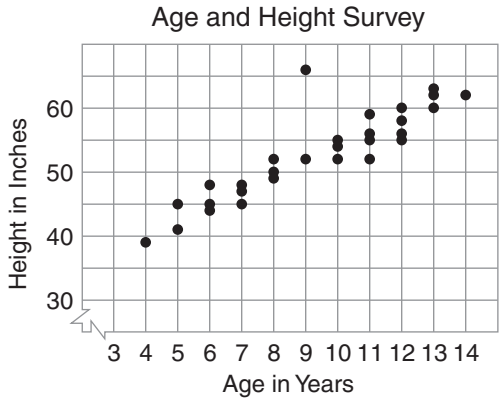
② Locate the ordered pairs on the graph for the data.

Age and Height Survey

Age (y)	Height (in.)	Age (y)	Height (in.)	Age (y)	Height (in.)
11	55	4	39	12	55
10	55	13	62	10	54
8	49	11	52	7	47
6	45	5	41	13	63
10	52	14	62	9	66
11	59	12	56	9	52
7	45	8	52	12	58
12	60	6	44	13	60
6	48	7	48	8	50
5	45	4	39	11	56

③ Determine if there is an association that describes the data. Is it positive, negative, or is there no association? This data shows a positive association.

④ Decide if the data is clustered together or if there is an outlier. This data is mostly clustered together, but there is one point (9, 66) that is higher than the others, so it is an outlier.



Use the data below for Exercises 1–5.

Weight (lb)	78	63	67	52	81	92	60	34	83	47	73	98	45	31	95	71	76	41
Height (in.)	56	52	55	47	58	60	50	39	58	45	54	61	45	36	60	54	56	41

1. Draw the scatter plot.

2. Does the data appear to be linear? Explain.

   Yes, a line can be drawn near most of the data.

3. Do you identify outliers in the data? Explain.

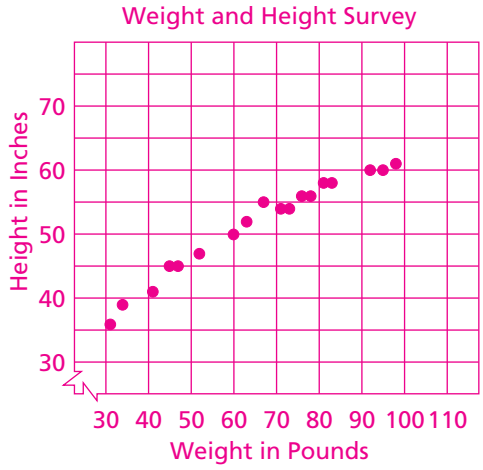
   No, all of the data points are clustered.

4. Does the data show a positive, negative, or no correlation?

   positive

5. What does the graph indicate about the data?

   Sample answer: As height increases, weight increases.



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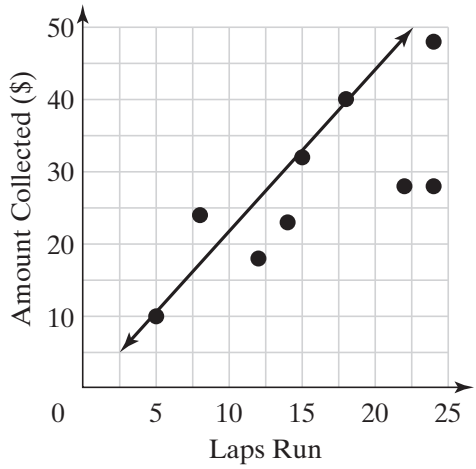
Reteaching 10-3

Modeling Data with Lines

A trend line is a line you draw on a graph to approximate the relationship between data sets.

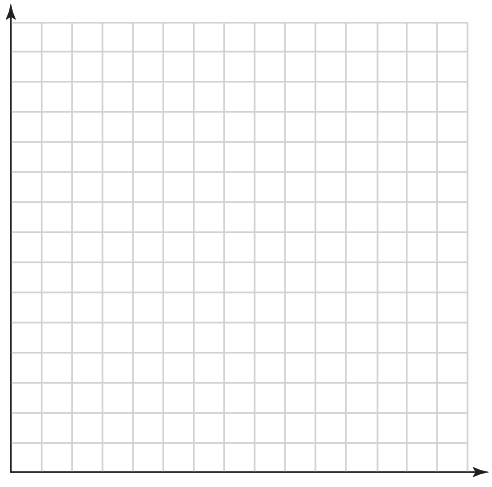
- To find the trend line, first plot the data.
- Then look for a trend. Draw a line that has a slope with the same trend.
- Make sure there are about as many points above the line as below it.
- You can use two points on the trend line to calculate its slope. Then you can use the slope and estimate the *y*-intercept to write an equation to describe the line.
- You can use a trend line equation to estimate values and make predictions.



Number of Laps	5	8	12	15	18	22	24	14
Amount Collected ($)	10	24	18	32	40	28	48	23

Plot the data and label the graph.

Seeding Height (cm)	9	14	16	20	38	42	54	62
Day	5	8	12	16	22	25	28	30



1. Draw a trend line to represent the data.
2. Find the slope of the trend line.

   _____

3. Estimate the *y*-intercept of the trend line.

   _____

4. Write an equation to describe the trend line.

   _____

5. Use the equation to predict the seedling height on day 45.

   _____

Check that students' answers represent the data. Keep in mind that equations may differ slightly.

Name _____ Class _____ Date _____

Reteaching 10-4

Two-Way Tables

A frequency table organizes and displays data for two different categories.

Suppose 157 babies were born in a hospital one day. The table shows how many were boys and girls and how much the babies weighed. You can find a relative frequency by dividing the frequency by the column or row total. About what percent of the babies who weighed less than 8 pounds were boys?

	Less Than 8 Pounds	8 Pounds or More
Boys	55	32
Girls	46	24
Total	101	56

frequency = 55 boys weighed less than 8 lb

total = 101 babies weighed less than 8 lb in all

relative frequency = 55/101, or about 54%, of the babies who weighed less than 8 pounds were boys

A group of 65 students was surveyed about whether they had ridden a roller coaster or a Ferris wheel.

	Ridden a Roller Coaster	Never Ridden a Roller Coaster
Ridden a Ferris wheel	18	8
Never ridden a Ferris wheel	24	15
Total	42	23

1. About what percent of the students surveyed have never ridden a roller coaster or a Ferris wheel?

15/65 ≈ 23%

2. About what percent of the students surveyed have ridden both a roller coaster and a Ferris wheel?

18/65 ≈ 28%

3. About what percent of the students surveyed have ridden either a roller coaster or a Ferris wheel, but not both?

32/65 ≈ 49%