***Scatter Plots and Trend Lines***

**Graph a scatter plot using the given data.**

1.

The table shows the percent of people ages 18

–

24

who reported they voted in the presidential elections.

Graph a scatter plot using the given data.

**Year**

1988

1992

199

6

2000

2004

**% of 18**

**-**

**24**

**year olds**

36

43

32

32

42

**Write *positive*, *negative*, or *none* to describe the correlation illustrated by each scatter plot.**

2.

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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Number of sandwiches**  | 1  | 2  | 4  | 6  | 7  |
| **Minutes**  | 3  | 4  | 5  | 6  | 7  |

**3.** Neal kept track of the number of minutes it took him to assemble sandwiches at his restaurant. The information is in the table below.

1. Graph a scatter plot of the data.
2. Draw a trend line.
3. Describe the correlation as either positive or negative.

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1. Based on the trend line you drew, predict the amount of time it will take Neal to assemble 12 sandwiches.

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**4. Fawn is trying to improve her reading skills by taking a speed- reading class. She is measuring how many words per minute (wpm) she can read after each week of the class.**

 a. Graph a scatter plot using the given data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Weeks**  | 1  | 2  | 3  | 4  | 5  |
| **wpm**  | 220  | 230  | 260  | 260  | 280  |

b. Describe the correlation illustrated by the scatter plot.

c. Draw a trend line and use it to predict the number of words per minute that Fawn will read after 8 weeks of this class.

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d. Fawn is paying for this class each week out of her savings account. Identify the correlation between the number of classes and Fawn’s account balance.

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**Choose the scatter plot that best represents the described relationship.**

a. the distance a person runs and how physically tired that person is

1. Graph 1 C Graph 3

1. Graph 2 D Graph 4

b. the price of a new car and the number of hours in a day

* 1. Graph 1 H Graph 3
	2. Graph 2 J Graph 4

c. a person’s age and the amount of broccoli the person eats

* 1. Graph 1 C Graph 3

* 1. Graph 2 D Graph 4

d. the number of cats in a barn and the number of mice in that barn

* 1. Graph 1 H Graph 3
	2. Graph 2 J Graph 4