

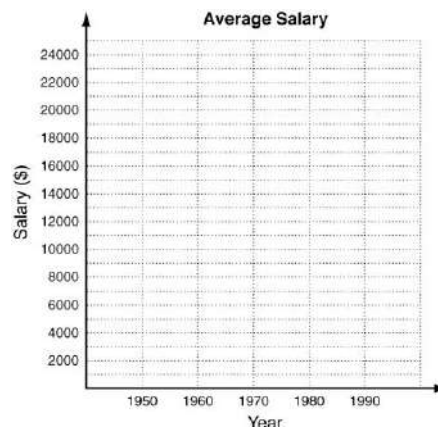
## 3.5 - Practice C

### Scatter Plots and Trend Lines

Graph a scatter plot using the given data.

- The table shows the average salary (rounded to the nearest hundred) for one type of worker, listed by decade. Graph a scatter plot using the given data.

Decade	1950	1960	1970	1980	1990
Avg. Salary	\$2800	\$4800	\$8300	\$15,400	\$23,700



Identify the correlation you would expect to see between the pair of data sets. Explain.

- The number of chicken pox vaccines given and the number of chicken pox cases reported.

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- The number of vacation days given to employees and their level of job satisfaction.

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The average number of gallons of coffee per person consumed in the United States is shown in the table below.

Years	1998	1999	2000	2001	2002	2003
Avg. annual per capita consumption	23.9	25.1	26.3	24.2	23.6	24.3

- Graph a scatter plot of the data.

- Draw a trend line.

- Describe the correlation.

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- Based on the trend line you drew, predict the average amount of coffee consumed per person in 2007.

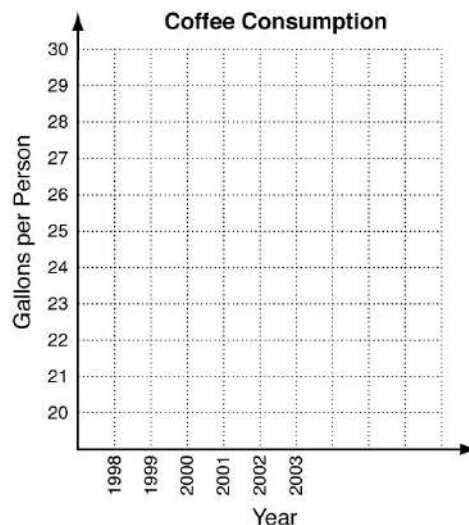
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- How confident are you in your prediction? Explain.

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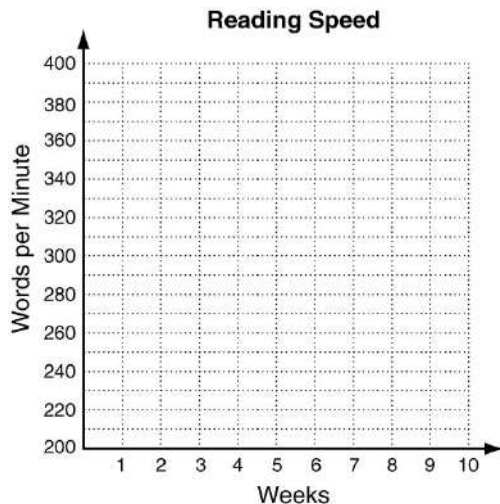
## 3.5 - Problem Solving

### Scatter Plots and Trend Lines

Caliah 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.

- Graph a scatter plot using the given data.

Weeks	1	2	3	4	5
wpm	220	230	260	260	280



- Describe the correlation illustrated by the scatter plot.

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

- Caliah is paying for this class each week out of her savings account. Identify the correlation between the number of classes and Caliah's account balance.

Choose the scatter plot that best represents the described relationship.

- the distance a person runs and how physically tired that person is  
 A Graph 1                      C Graph 3  
 B Graph 2                      D Graph 4
- the price of a new car and the number of hours in a day  
 F Graph 1                      H Graph 3  
 G Graph 2                      J Graph 4
- a person's age and the amount of broccoli the person eats  
 A Graph 1                      C Graph 3  
 B Graph 2                      D Graph 4
- the number of cats in a barn and the number of mice in that barn  
 F Graph 1                      H Graph 3  
 G Graph 2                      J Graph 4

