1. 



Using a ruler, draw a line of best fit through the data points that captures the general trend of the data.

Estimate the slope and $y$-intercept of your line.
$m \approx$ $\qquad$ $b \approx$ $\qquad$

Write a prediction function for the data set.

Use your prediction function to find the value of $y$ when $x=12$ and when $x=100$.
3.


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4.


Using a ruler, draw a line of best fit through the data points that captures the general trend of the data.

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Write a prediction function for the data set.

Use your prediction function to find the value of $y$ when $x=12$ and when $x=100$.

1. Susan loves social media and is interested in at what age people prefer different social media outlets. She groups people into the following age groups, middle school age, high school age, and college age. She then asks 75 people what their favorite form of social media is, Twitter, Instagram, or Facebook.
a. Fill in the missing information in the frequency table below.

|  | Facebook | Instagram | Twitter | Totals |
| :---: | :---: | :---: | :---: | :---: |
| Middle <br> School |  | 5 | 3 |  |
| High School | 10 | 10 |  | 27 |
| College |  | 7 |  | 24 |
| Total | 31 |  | 22 |  |

b. How many Middle School aged people were surveyed?
c. How many people prefer Instagram?
d. How many college age people prefer Facebook?
e. How many high school aged people prefer Twitter?
2. Julie wants to know if there is an association between gender and the type of movie a person prefers. She surveys 500 people and discovers the following.

- $35 \%$ of the people surveyed prefer comedy movies
- $\frac{3}{10}$ of the people surveyed prefer action movies
- 95 people surveyed prefer romance movies
- Of the females surveyed, $\frac{2}{7}$ prefer romance movies
- $35 \%$ of the males surveyed prefer comedy movies
a. Complete the two-way frequency table to display the data.


|  | Romance | Comedy | Action | Drama | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Male |  |  |  |  |  |
| Female |  |  |  | 52 | 280 |
| Total |  |  |  |  |  |

## Show your work here:

