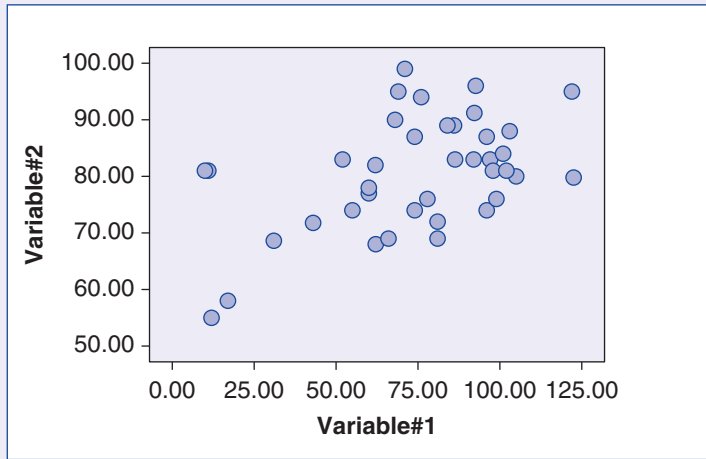


LEARNING CHECK

1. Define "positive" and "negative" in the context of correlation coefficients.

A: These terms deal with the slope of the association between the two variables. A positive correlation means that there is a positive slope (i.e., the values of both variables tend to move in the same direction), and a negative correlation means that there is a negative slope (i.e., the values of both variables tend to move in the opposite direction).



2. Consider the above scatterplot. Which of the following correlation coefficients is the BEST estimate of the coefficient that would represent the data in the above scatterplot?

- a) -1.25
- b) $-.50$
- c) $+1.25$
- d) $+.50$

A: d

3. Which of the following is the **strongest** correlation coefficient?

- a) $+.25$
- b) $-.86$
- c) $-.07$
- d) $+1.35$

A: b; remember that correlations cannot be stronger than the absolute value of 1.0, so if you chose d, understand why it is wrong.

4. You would probably find a **POSITIVE** correlation between:

- a) the number of hours studying for a test and scores on that test.
- b) distance from the equator and average daily high temperature.
- c) frequency of brushing your teeth and amount of plaque buildup on your teeth.
- d) levels of depression and levels of physical activity.

A: a

(Continued)