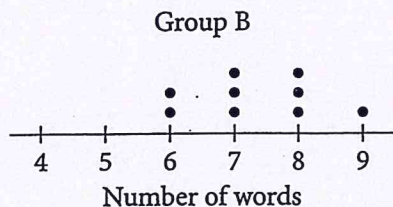
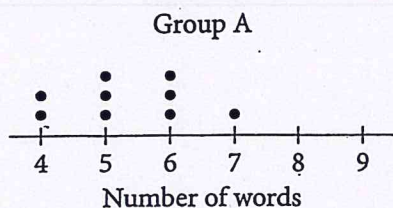


You can use a calculator to answer these PSAT questions.

21



In a psychology experiment, students in two groups were given a word and asked to list words that rhyme with it. The number of words for the two groups of people are summarized in the dot plots shown. Which of the following statements is true?

- A) The standard deviation is greater for group B than for group A.
- B) The standard deviation is greater for group A than for group B.
- C) The standard deviation for group A is equal to the standard deviation for group B.
- D) The standard deviation for either group cannot be determined from the dot plots.

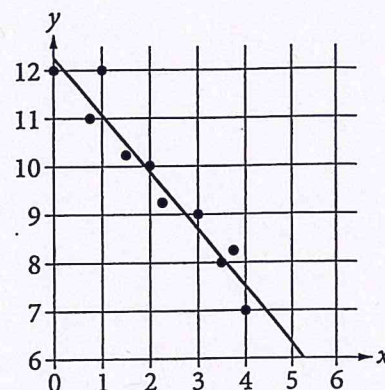
23

The total land area of Honduras is approximately 11.2 million hectares, of which 15% is suitable for agriculture, including land used for coffee growing. If 310,000 hectares are used for coffee growing, which of the following best approximates the percent of Honduras's land area that is suitable for agriculture that is used for coffee growing? (1 million = 1,000,000)

- A) 2.8%
- B) 9.8%
- C) 18.5%
- D) 27.7%

22

The scatterplot shows the relationship between two variables, x and y . A line of best fit for the data is also shown. Which of the following is closest to the difference between the y -coordinate of the data point with $x = 1$ and the y -value predicted by the line of best fit at $x = 1$?



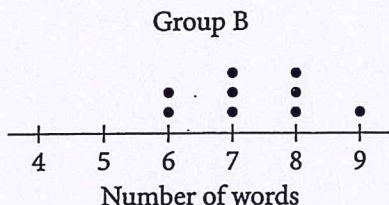
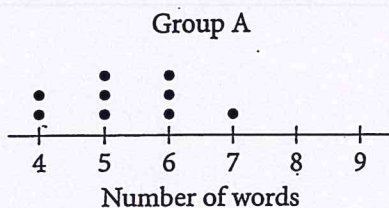
- A) 1
- B) 2
- C) 5
- D) 12

27

A new savings account was opened with an initial deposit of \$1,000. Each year, the account earns 2% interest on the amount of money in the account the previous year, and this interest is added to the account. If no additional deposits or withdrawals are made, which of the following functions gives the account value $A(t)$, in dollars, after t years?

- A) $A(t) = 1,000(1 + 0.02t)$
- B) $A(t) = 1,000(1 + 1.02t)$
- C) $A(t) = 1,000(0.02)^t$
- D) $A(t) = 1,000(1.02)^t$

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STANDARD DEVIATION IS A MEASURE OF THE AMOUNT OF VARIATION IN A SET OF DATA. THESE TWO SETS OF DATA HAVE THE SAME "SPREAD" THEREFORE, THE SAME STD. DEV.

23

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hectares suitable for agric.

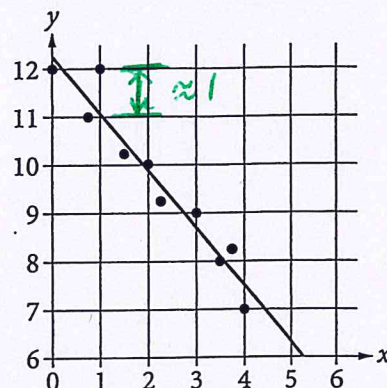
$$.15(11,200,000) = 1,680,000$$

% of land suitable for agric that is used for coffee growing

$$= \frac{310,000}{1,680,000} \times 100 = 18.452$$

22

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$$P = 1000$$

$$r = .02$$

$$n = 1$$

$$A = 1000\left(1 + \frac{.02}{1}\right)^{1 \cdot t}$$

$$A = 1000(1.02)^t$$