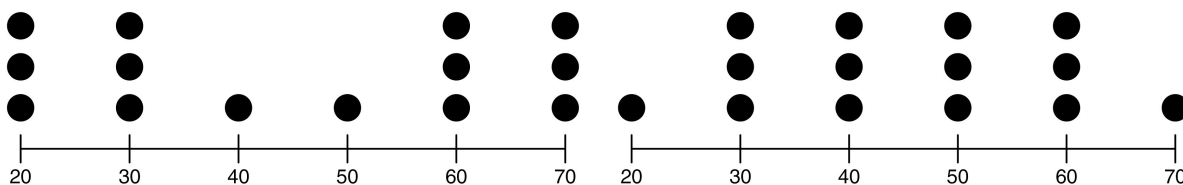


PRACTICE QUIZ 1

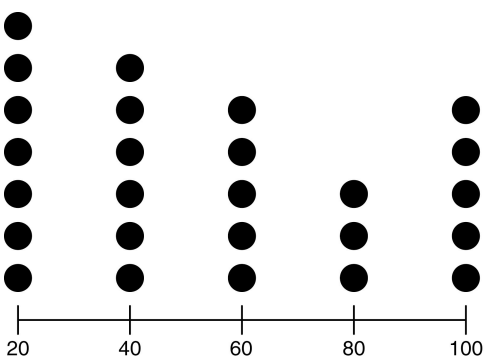
1. Two companies have made a chart of paid time off. Which statement describes the mean and standard deviation?

Paid Time off for Employees at Company A

Paid Time off for Employees at Company B



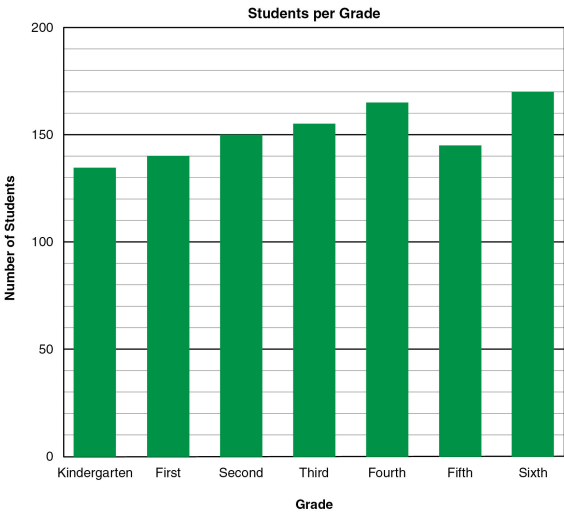
- A. The means are the same, but the standard deviation is smaller for Company B.
- B. The means are the same, but the standard deviation is smaller for Company A.
- C. The mean is greater for Company A, and the standard deviation is smaller for Company A.
- D. The mean is greater for Company B, and the standard deviation is smaller for Company B.
2. A basketball player scores 18, 17, 20, 23, 15, 24, 22, 28, 5. What is the effect of removing the outlier on the mean and standard deviation?
- A. The mean and the standard deviation increase.
- B. The mean and the standard deviation decrease.
- C. The standard deviation increases, but the mean decreases.
- D. The standard deviation decreases, but the mean increases.
3. Find the median from the dot plot.



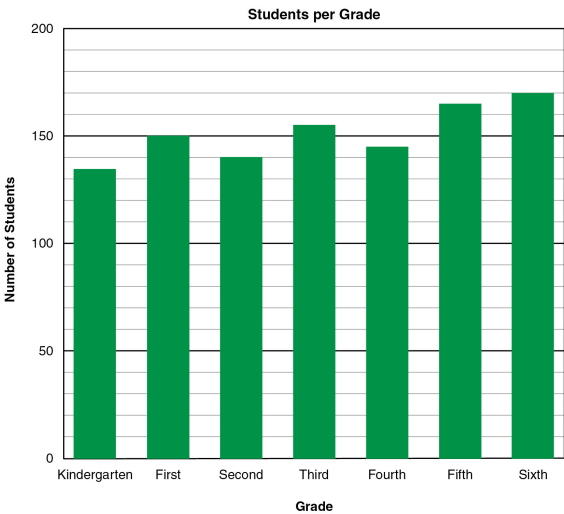
- A. 40
- B. 50
- C. 60
- D. 70

4. The table shows the number of students in grades kindergarten through sixth grade. Select the correct bar graph for this data.

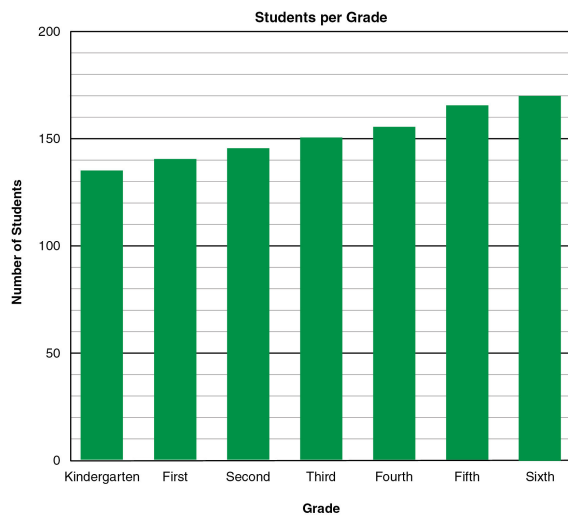
Grade	Kindergarten	1 st	2 nd	3 rd	4 th	5 th	6 th
Number of Students	135	150	140	155	145	165	170



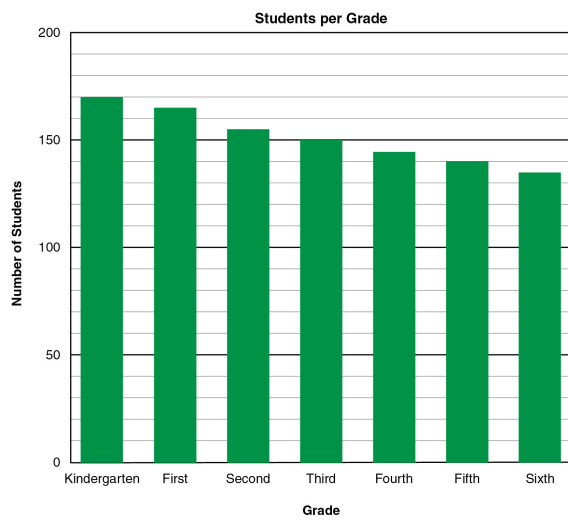
A.



B.

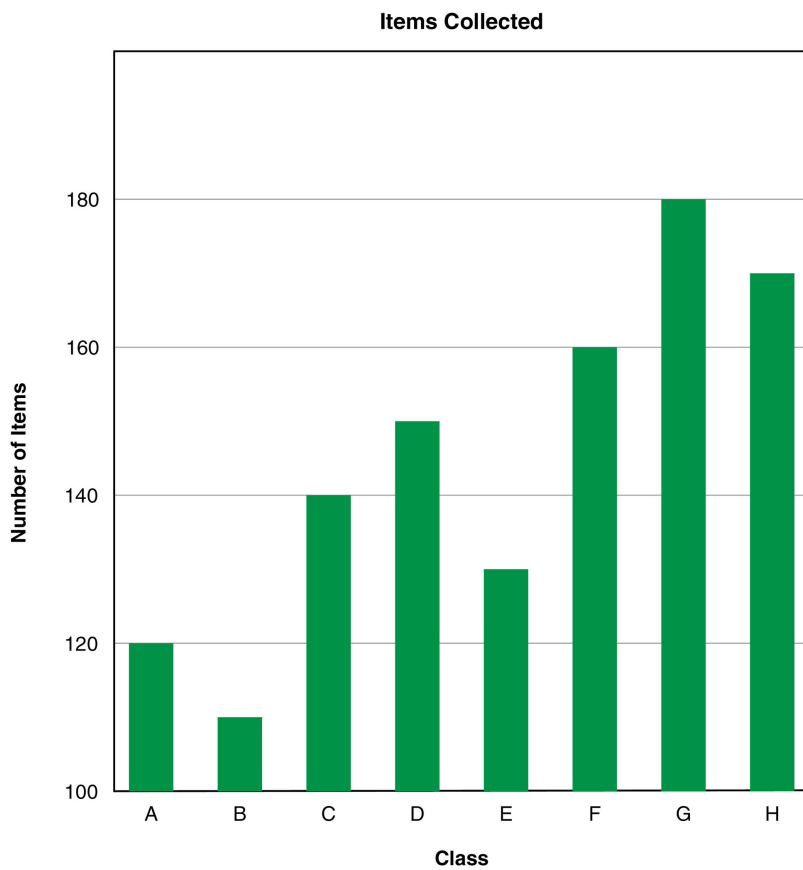


C.

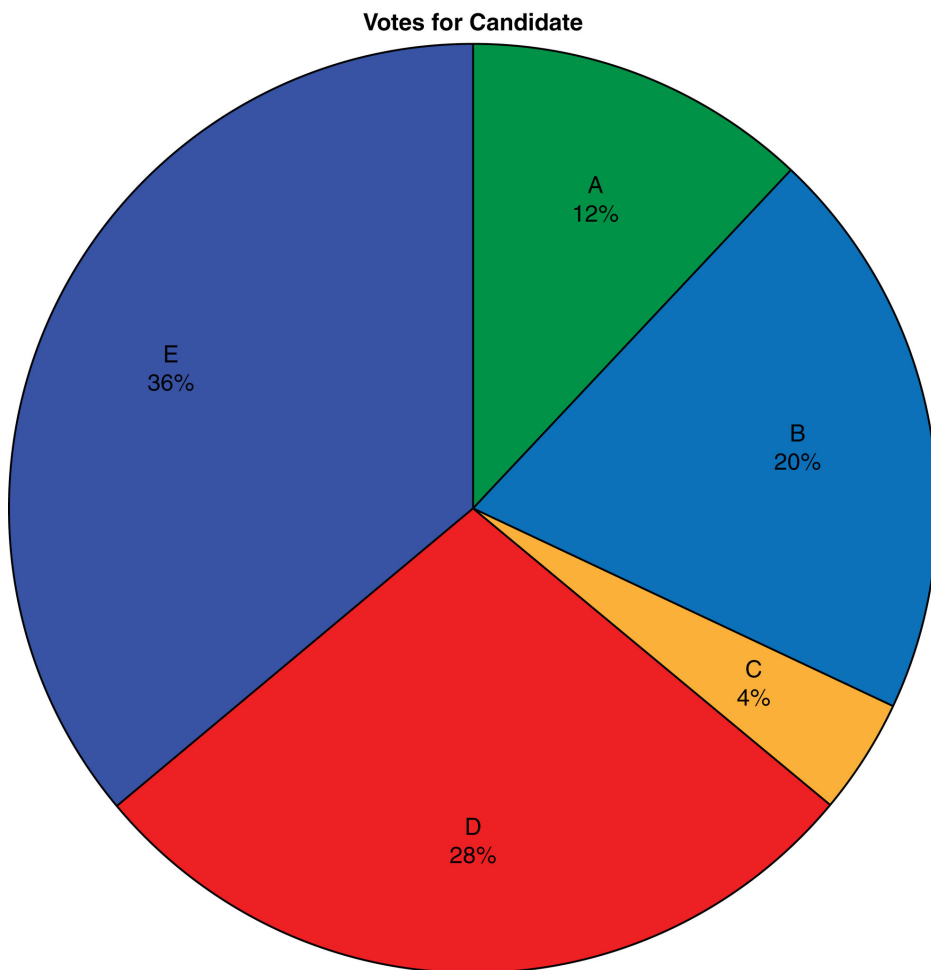


D.

5. The bar chart shows the number of items collected for a charity drive. Which statement is true for the bar chart?



- A. Classes F, G, and H each collected more than 150 items.
 - B. Classes D, F, and G each collected more than 150 items.
 - C. Classes C, D, and E each collected more than 140 items.
 - D. Classes A, B, and C each collected more than 140 items.
6. The circle graph shows the number of votes for each candidate. How many votes were cast for candidate D if there were 25,000 voters?



- A. 3,000 votes
- B. 5,000 votes
- C. 7,000 votes
- D. 9,000 votes

7. Convert 72 pounds to kilograms.

- A. 32.73 kilograms
- B. 74.20 kilograms
- C. 144.0 kilograms
- D. 158.4 kilograms

8. Convert 48 inches to yards.

- A. $1\frac{1}{3}$ yards
- B. 4 yards

C. $4\frac{4}{5}$ yards

D. 16 yards

9. What temperature is 75° F on the Celsius scale?

A. 60° C

B. 77° C

C. 41° C

D. 24° C

10. A bag contains 10 red marbles, 8 black marbles, and 7 white marbles. What is the probability of selecting a black marble first and a red marble second with no replacement?

A. $\frac{8}{25}$

B. $\frac{16}{125}$

C. $\frac{2}{15}$

D. $\frac{7}{75}$

11. Which option results in the greatest gain on an investment?

A. 100% of gaining \$1,000

B. 60% of gaining \$2,500 and 40% of gaining \$0

C. 75% of gaining \$1,000 and 25% of gaining \$1,500

D. 70% of gaining \$1,500 and 30% of gaining \$1,000

12. There are 60 students attending classes in town. There are 40 students in dance class and 30 students in art class. Find the number of students in either dance or art class.

A. 30

B. 40

C. 50

D. 60

PRACTICE QUIZ 1 – ANSWER KEY

1. A. The correct solution is the means are the same, but the standard deviation is smaller for Company B. The standard deviation is smaller for Company B because more values are closer to the mean. See Lesson: Interpreting Categorical and Quantitative Data.
2. D. The correct solution is the standard deviation decreases, but the mean increases. The standard deviation from 6.226 and 3.951 when the low outlier is removed. The mean increases from 19.11 to 20.88 because the outlier, 5, is the lowest value. See Lesson: Interpreting Categorical and Quantitative Data.
3. B. The correct solution is 50. The middle two values are 40 and 60, and the average of these values is 50. See Lesson: Interpreting Categorical and Quantitative Data.
4. B. The correct solution is B because the number of students for each grade is correct. See Lesson: Interpreting Graphics.
5. A. The correct solution is classes F, G, and H collected more than 150 items. Class F collected 160 items, class G collected 180 items, and class H collected 170 items. See Lesson: Interpreting Graphics.
6. C. The correct solution is 7,000 votes because 28% of 25,000 is 7,000 voters. See Lesson: Interpreting Graphics.
7. A. The correct solution is 32.73 kilograms. $72 \text{ lb} \times \frac{1 \text{ kg}}{2.2 \text{ lb}} = \frac{72}{2.2} = 32.73$ kg. See Lesson: Conversions.
8. A. The correct solution is $1\frac{1}{3}$ yards. $48 \text{ in} \times \frac{1 \text{ ft}}{12 \text{ in}} \times \frac{1 \text{ yd}}{3 \text{ ft}} = \frac{48}{36} = 1\frac{1}{3}$ yd. See Lesson: Conversions.
9. D. Using the appropriate conversion equation, $(75^{\circ} \text{ F} - 32) \times \frac{5}{9} = 23.88$ or 24° C . See Lesson: Conversions.

10. C. The correct solution is $\frac{2}{15}$. There are 8 marbles out of 25 for the first event and 10 marbles out of 24 for the second event. The probability of the event is $\frac{8}{25} \times \frac{10}{24} = \frac{80}{600} = \frac{2}{15}$. See Lesson: Statistics & Probability: The Rules of Probability.

11. B. The correct solution is 60% of gaining \$2,500 and 40% of gaining \$0. The expected value is $0.60(2,500) + 0.40(0) = \$1,500$. See Lesson: Statistics & Probability: The Rules of Probability.

12. C. The correct solution 50 because there are 70 students in both classes less the total students is 10 students. Then, subtract 10 students from the total, which is 50 students. See Lesson: Statistics & Probability: The Rules of Probability.

PSAT Resource Links

PSAT Online Practice Tests: <https://www.crackpsat.net/psat/>

❖ PSAT Reading Practice Tests:

<https://www.crackpsat.net/psat/reading/>

❖ PSAT Writing and Language Tests:

<https://www.crackpsat.net/psat/writing-language/>

❖ PSAT Math Practice Tests:

<https://www.crackpsat.net/psat/math/>

PSAT Real Past Papers Download:

<https://www.crackpsat.net/psat-downloads/>

New SAT Practice Tests:

<https://www.cracksat.net>

ACT Practice Tests:

<https://www.crackacc.com>

AP Exams Practice Tests:

<https://www.crackap.com>

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