

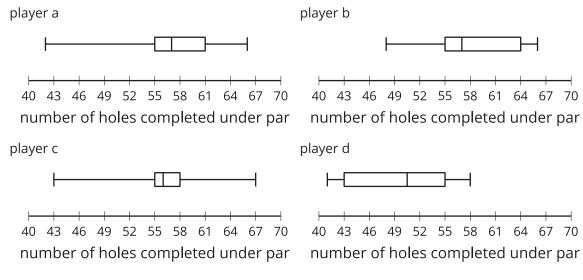
### Solution

A

# **Problem 3**

### Statement

Four amateur miniature golfers attempt to finish 100 holes under par several times. Each round of 100, the number of holes they successfully complete under par is recorded. Due to the presence of extreme values, box plots were determined to be the best representation for the data. List the four box plots in order of variability from least to greatest.



# Solution

c, a, b, d

### **Problem 4**

### Statement

Select **all** the distribution shapes for which the median *could be* much less than the mean.

- A. symmetric
- B. bell-shaped
- C. skewed left
- D. skewed right
- E. bimodal

### Solution

["D", "E"] (From Unit 1, Lesson 10.)

### **Problem 5**

#### **Statement**

a. What is the five-number summary for the data 0, 2, 2, 4, 5, 5, 5, 5, 7, 11?

b. When the minimum, 0, is removed from the data set, what is the five-number summary?

### Solution

a. 0, 2, 5, 5, 11 (Minimum, Q1, Median, Q3, Maximum)

b. 2, 3, 5, 6, 11 (Minimum, Q1, Median, Q3, Maximum)

(From Unit 1, Lesson 9.)

### Problem 6

#### Statement

What effect does eliminating the highest value, 180, from the data set have on the mean and median?

25, 50, 50, 60, 70, 85, 85, 90, 90, 180

### Solution

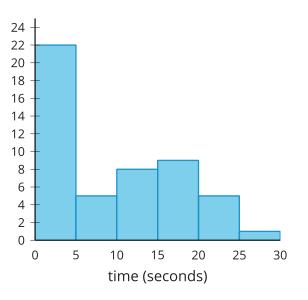
The mean decreases from 78.5 to approximately 67.22. The median decreases from 77.5 to 70.

(From Unit 1, Lesson 9.)

# Problem 7

# Statement

The histogram represents the distribution of the number of seconds it took for each of 50 students to find the answer to a trivia question using the internet. Which interval contains the median?



- A. 0 to 5 seconds
- B. 5 to 10 seconds
- C. 10 to 15 seconds
- D. 15 to 20 seconds

# Solution

В

(From Unit 1, Lesson 3.)