Congratulations! You passed!

TO PASS 80% or higher

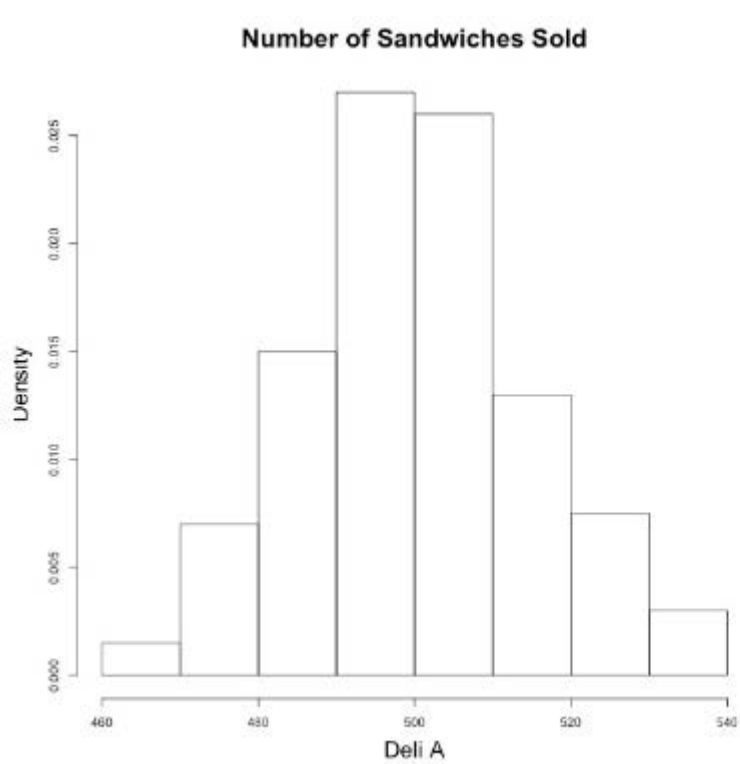
Keep Learning

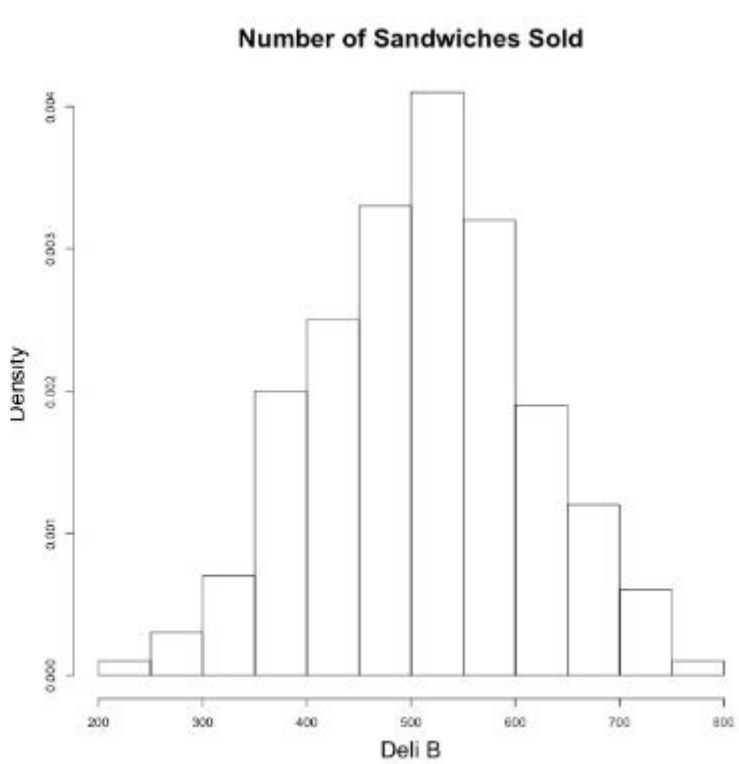
GRADE
100%

Practice Quiz: Summarizing Graphs in Words

TOTAL POINTS 12

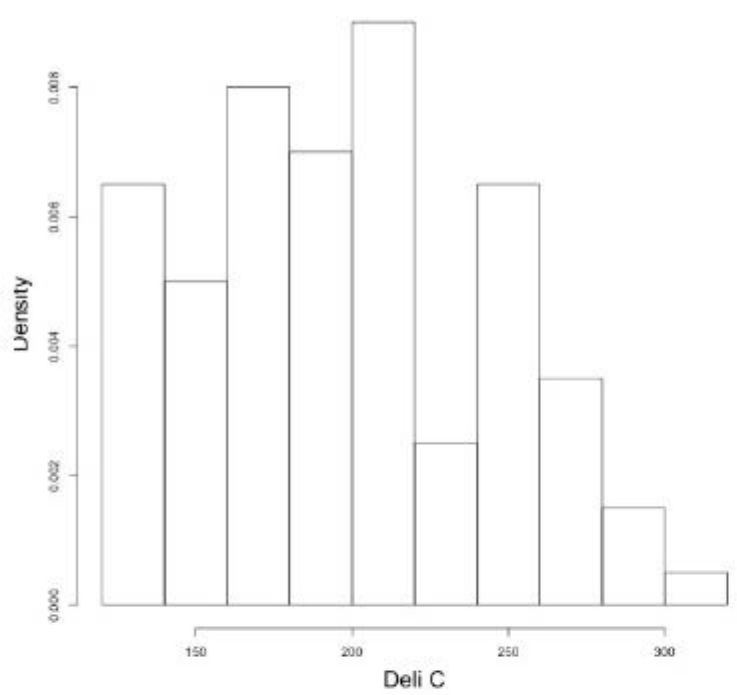
1. **The following graphs show the distributions for number of sandwiches sold per day at delis managed by the same owner and in the same region. Match these graphs to the appropriate sentence describing them.** **1 / 1 point**

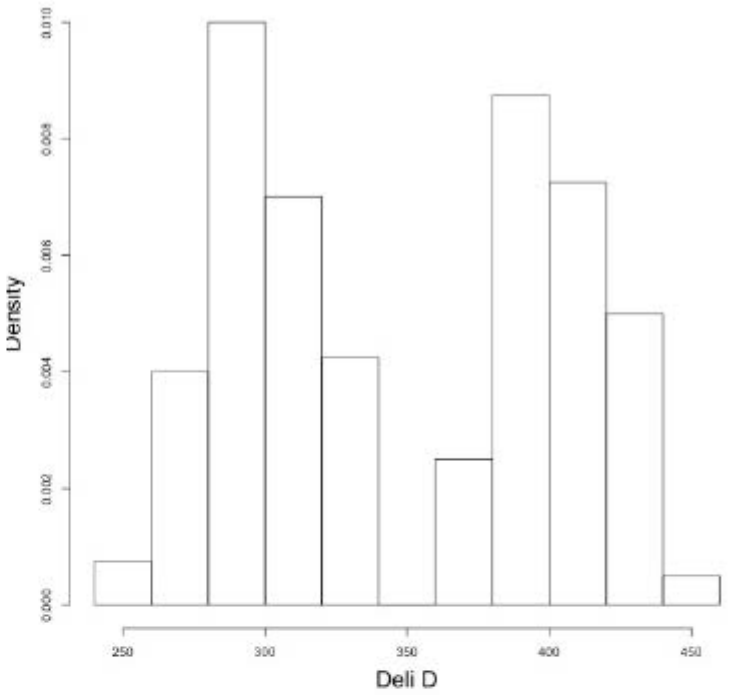




Number of Sandwiches Sold

Number of Sandwiches Sold





Which of these statements best summarizes Deli A?

- Statement 1: The number of sandwiches sold is bimodal with peaks around 300 and 400. The number of sandwiches vary from around 250 to around 450. There do not appear to be outliers.
- Statement 2: The number of sandwiches sold is slightly skewed left and unimodal, with a center around 500 and a range from around 200 to around 800. There do not appear to be outliers.
- Statement 3: The number of sandwiches sold is skewed right with a peak around 200. The number of sandwiches vary from around 125 to around 325. There do not appear to be outliers.
- (selected) Statement 4: The number of sandwiches sold has a bell shaped distribution, with a peak around 500 and with values varying from around 460 to around 540. There do not appear to be outliers.

✓ **Correct**

Great job! Looking at where the peak in the graph is can help determine the correct statement.

2. **Which of these statements best summarizes Deli B?** **1 / 1 point**

- ○ Statement 1: The number of sandwiches sold is bimodal with peaks around 300 and 400. The number of sandwiches vary from around 250 to around 450. There do not appear to be outliers.
- ◉ Statement 2: The number of sandwiches sold is slightly skewed left and unimodal, with a center around 500 and a range from around 200 to around 800. There do not appear to be outliers.
- ○ Statement 3: The number of sandwiches sold is skewed right with a peak around 200. The number of sandwiches vary from around 125 to around 325. There do not appear to be outliers.
- ○ Statement 4: The number of sandwiches sold has a bell shaped distribution, with a peak around 500 and with values varying from around 460 to around 540. There do not appear to be outliers.

✓ **Correct**

Great job! Looking at where the peaks on the graph seem to be can help determine which statement matches the graph.

3. **Which of these statements best summarizes Deli C?** 1 / 1 point

- Statement 1: The number of sandwiches sold is bimodal with peaks around 300 and 400. The number of sandwiches vary from around 250 to around 450. There do not appear to be outliers.
- Statement 2: The number of sandwiches sold is slightly skewed left and unimodal, with a center around 500 and a range from around 200 to around 800. There do not appear to be outliers.
- (selected) Statement 3: The number of sandwiches sold is skewed right with a peak around 200. The number of sandwiches vary from around 125 to around 325. There do not appear to be outliers.
- Statement 4: The number of sandwiches sold has a bell shaped distribution, with a peak around 500 and with values varying from around 460 to around 540. There do not appear to be outliers.

✓ **Correct**

Good job! The shape of Deli C's histogram can help limit the possible statements.

4. **Which of these statements best summarizes Deli D?** 1 / 1 point

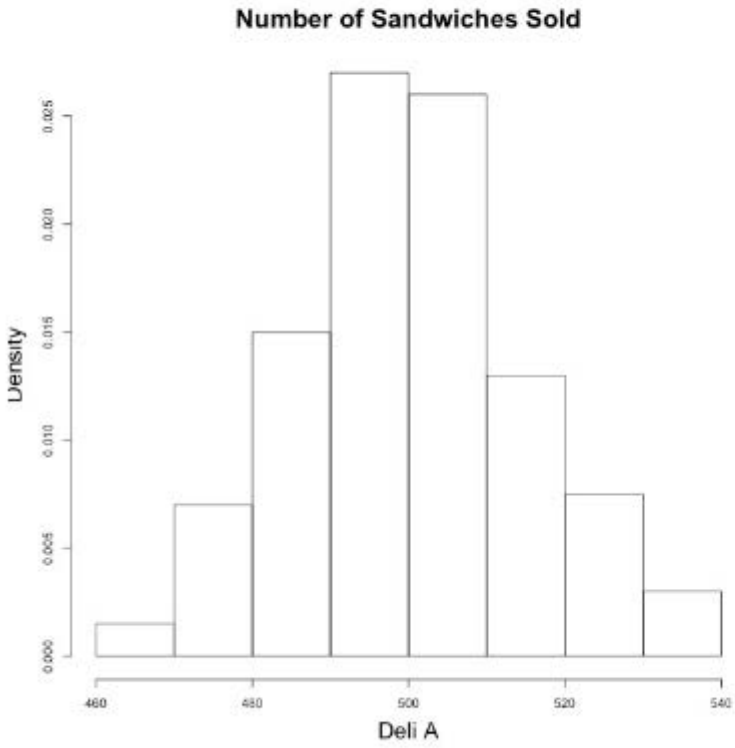
- (●) Statement 1: The number of sandwiches sold is bimodal with peaks around 300 and 400. The number of sandwiches vary from around 250 to around 450. There do not appear to be outliers.
- ( ) Statement 2: The number of sandwiches sold is slightly skewed left and unimodal, with a center around 500 and a range from around 200 to around 800. There do not appear to be outliers.
- ( ) Statement 3: The number of sandwiches sold is skewed right with a peak around 200. The number of sandwiches vary from around 125 to around 325. There do not appear to be outliers.
- ( ) Statement 4: The number of sandwiches sold has a bell shaped distribution, with a peak around 500 and with values varying from around 460 to around 540. There do not appear to be outliers.

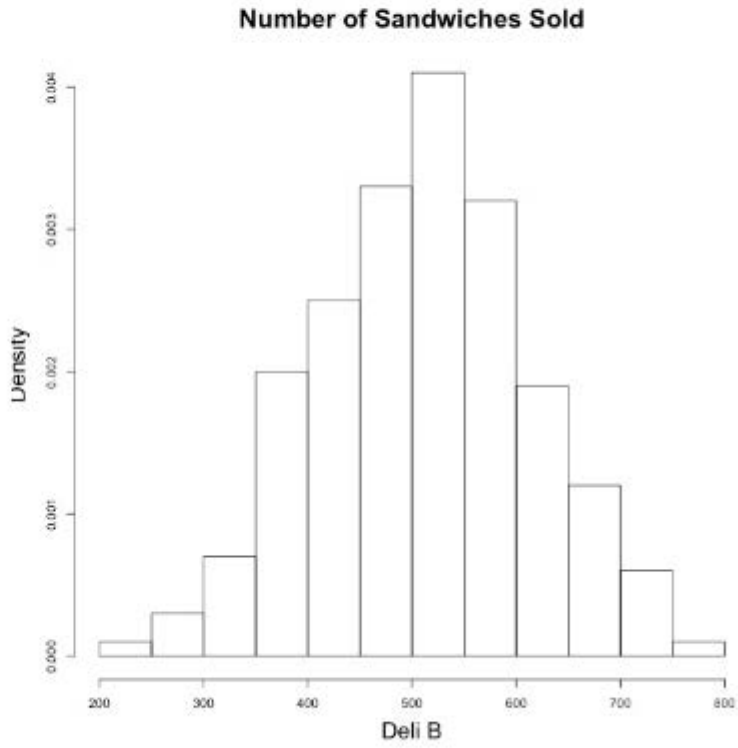
✓ **Correct**

Great job! The shape of Deli D's histogram can help limit the choices.

5. **Which Deli has the smallest range?**

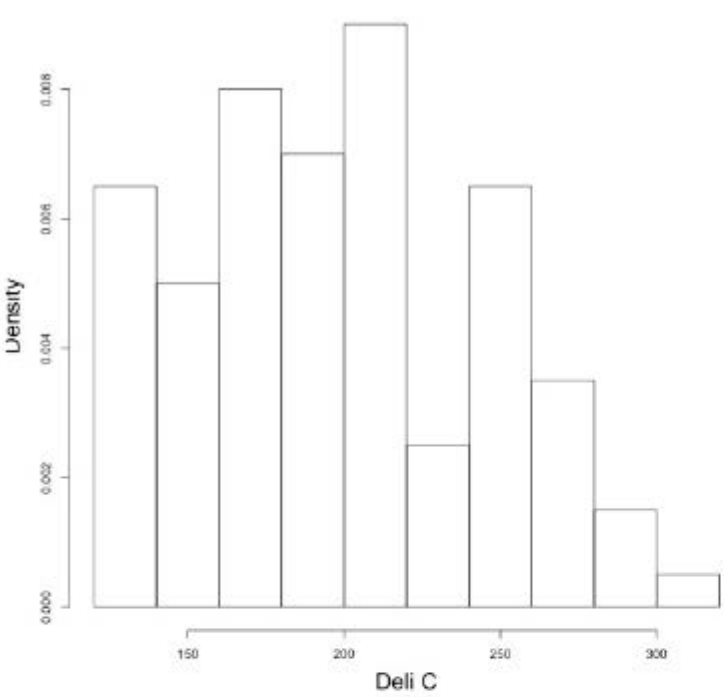
1 / 1 point

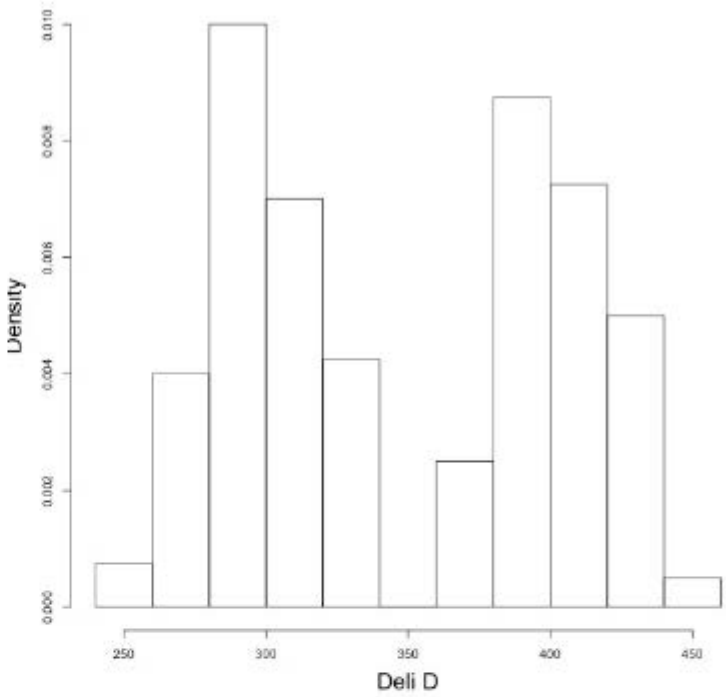




Number of Sandwiches Sold

Number of Sandwiches Sold





- (●) Deli A
- ( ) Deli B
- ( ) Deli C
- ( ) Deli D
- ( ) Can't tell

✓ **Correct**

Good job! Since the minimum of Deli A is at least 460 and the maximum is at most 540, the maximum possible range is 80. This is smaller than all of the other options.

6. **Which is larger for Deli C?** **1 / 1 point**

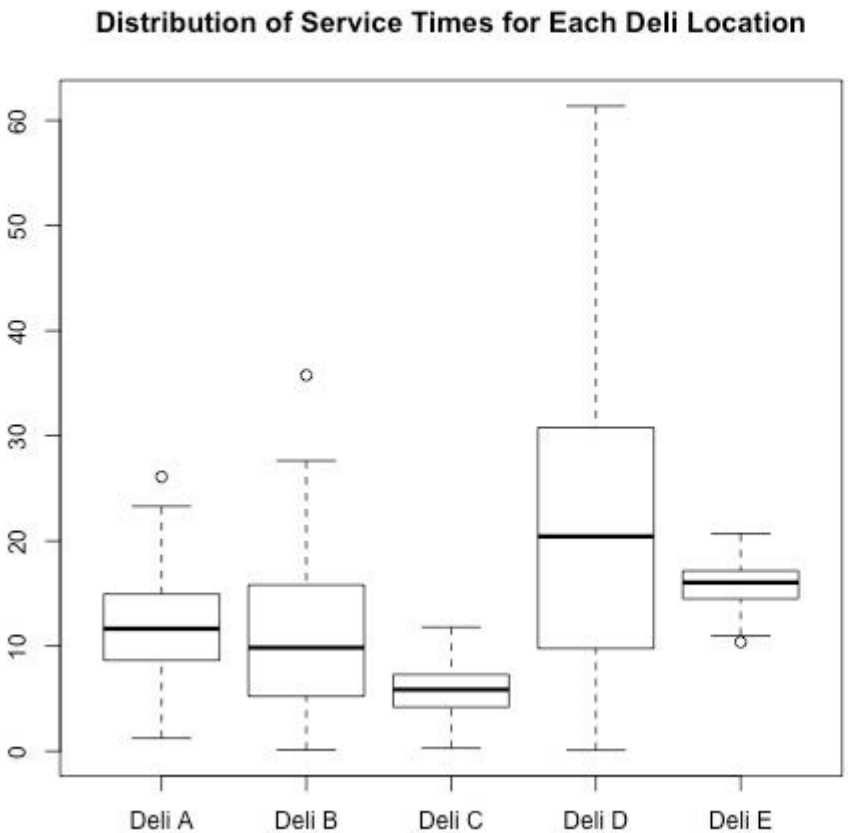
- (●) The mean
- ( ) The median
- ( ) They are the same
- ( ) Can't tell

✓ **Correct**

Good job! Because Deli C's histogram of sandwiches ordered is skewed right, that will pull the mean higher than the median.

7. **The following graph shows the service time for customers at five delis. What approximate proportion of customers are waiting for more than 12 minutes for their sandwich at Deli A?**

1 / 1 point



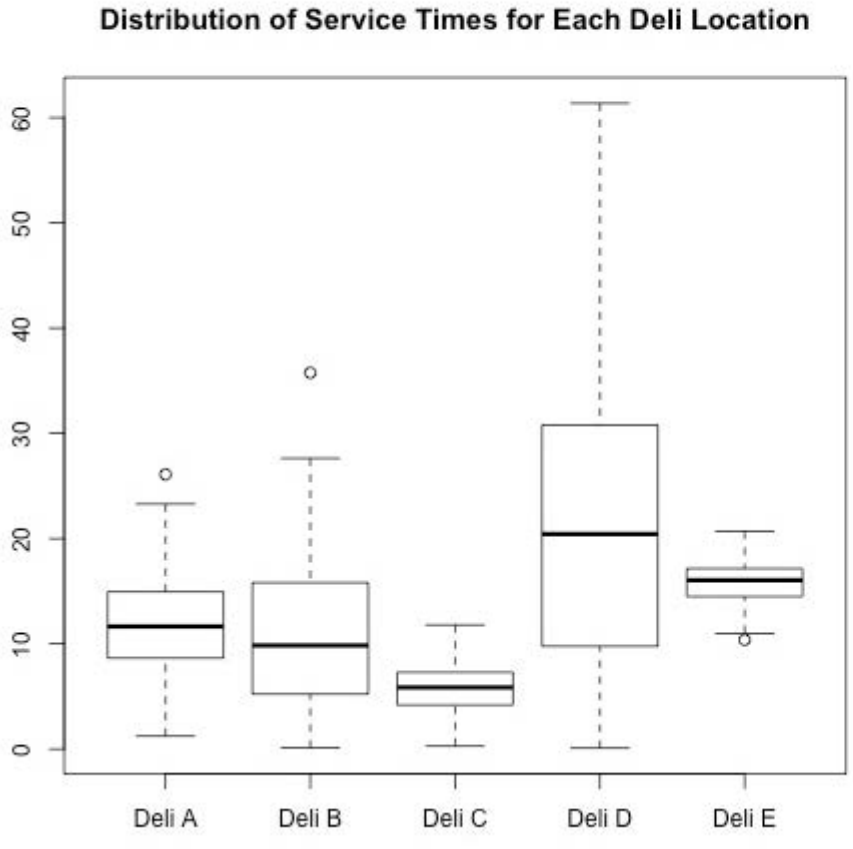
- ○ 25%
- ○ 30%
- ◉ 50%
- ○ 75%
- ○ Can't tell

✓ **Correct**

Good job! Because the middle line of the box is around 12, we know that approximately half of the customers will wait for more than 12 minutes for their sandwich to be served.

8. **Which deli's service time distribution has the smallest mean?**

1 / 1 point



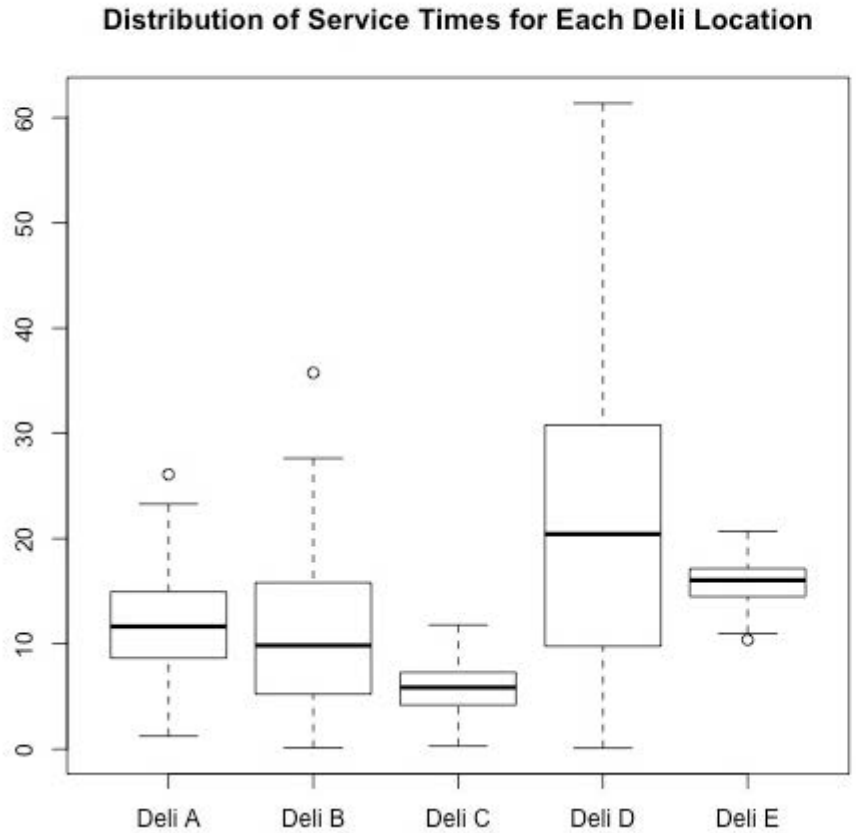
- Deli A
- Deli B
- Deli C
- Deli D
- Deli E

Correct

Good job! We can't fully answer this question because means are not incorporated into boxplots, so we can not determine which mean is largest or smallest. However, based on the location of all of the data points and because each location in Deli C's boxplot is smaller, we can tell that Deli C has the smallest mean.

9. **Which deli's service time distribution has the smallest median?**

1 / 1 point



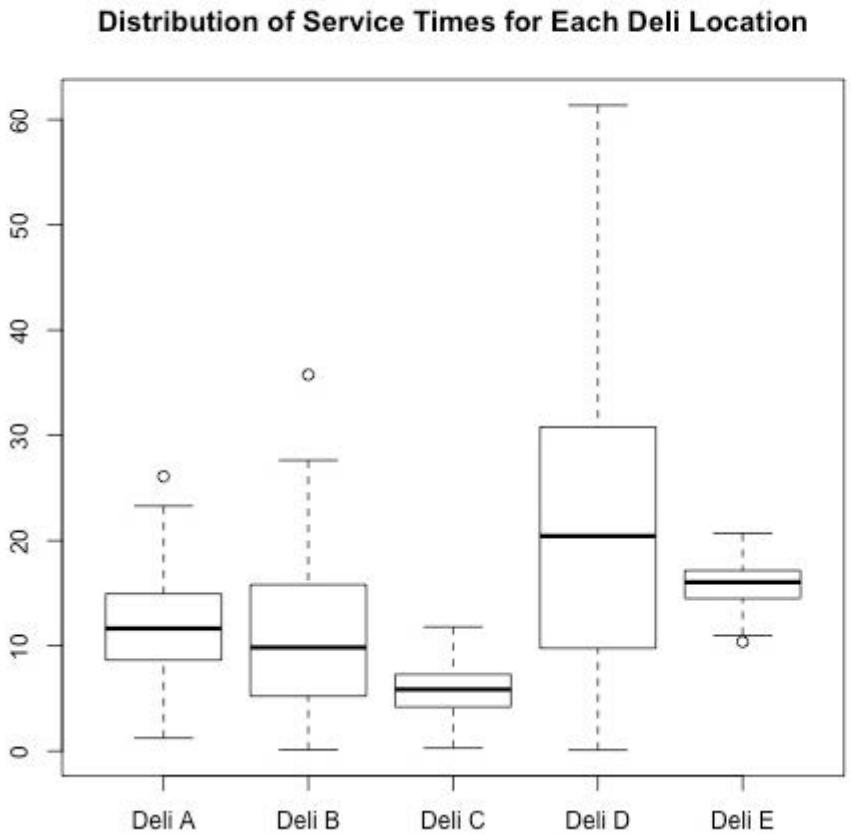
- ○ Deli A
- ○ Deli B
- ◉ Deli C
- ○ Deli D
- ○ Deli E
- ○ Can't tell

✓ **Correct**

Good job! The middle line in the box is the smallest for Deli C.

10. **What kind of distribution does Deli A's service time follow?**

1 / 1 point

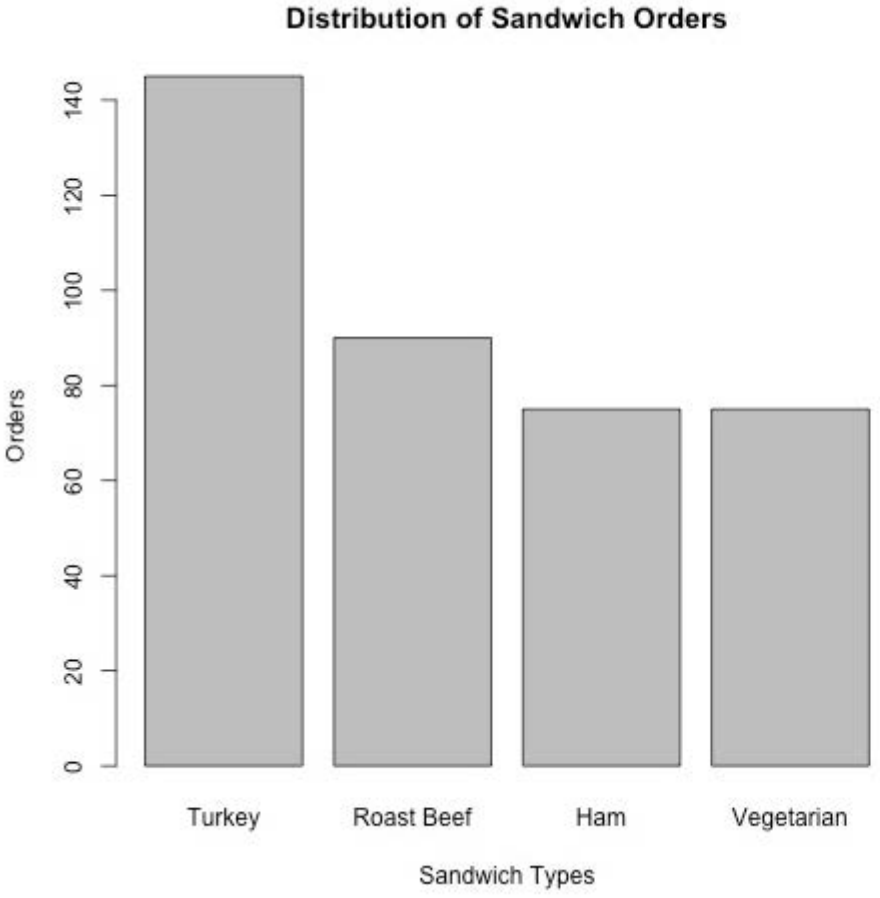


- ○ Bell-shaped (normal)
- ○ Skewed right
- ○ Uniform
- ◉ Can't tell

✓ **Correct**

Good job! We can't see the underlying distribution from a box plot. We can only see five numbers and any outliers rather than being able to see the entire distribution.

11. **The manager is also interested in looking at the distribution of the types of sandwiches ordered before placing the next order for food supplies. Which is the distribution shape of the types of sandwiches ordered?** **1 / 1 point**

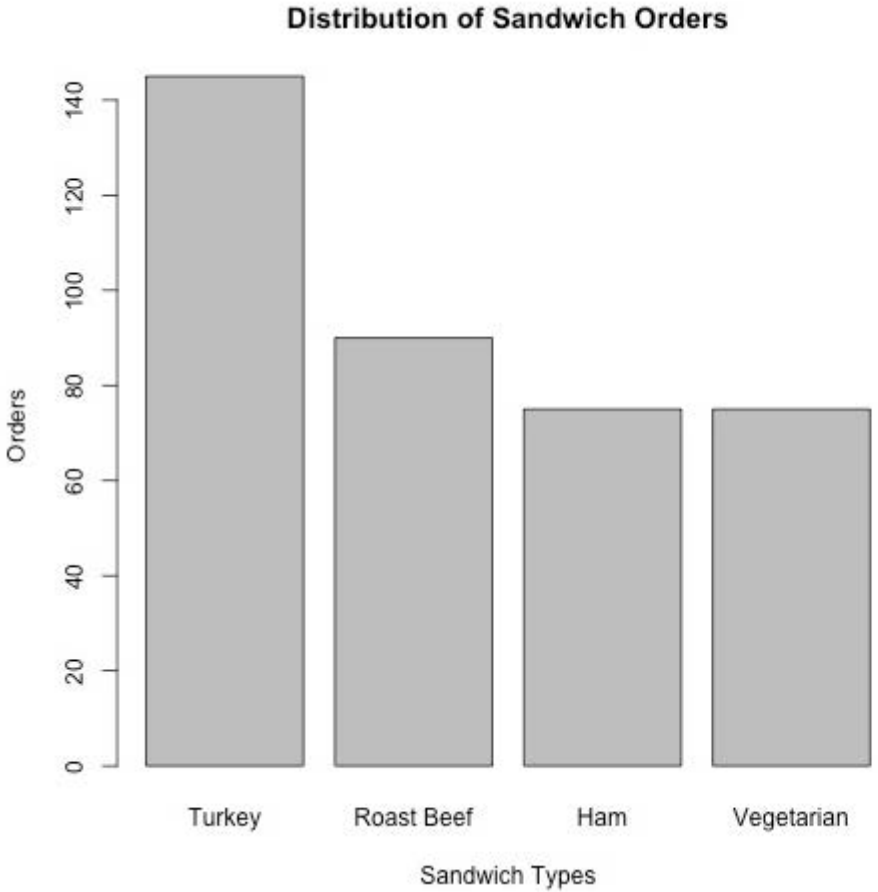

Distribution of Sandwich Orders
Orders
0
20
40
60
80
100
120
140
Turkey
Roast Beef
Ham
Vegetarian
Sandwich Types

- ○ Uniform
- ○ Bell shaped (normal)
- ○ Skewed right
- ○ Skewed left
- ◉ Can't tell

✓ **Correct**

Good job! Because the type of sandwich ordered is a categorical variable, we can not label the distribution type. Would this graph still make sense if we rearranged the bars? Would the shape be the same if we rearranged them?

12. **The manager is also interested in looking at the distribution of the types of sandwiches ordered before placing the next order for food supplies. Which type of sandwich is ordered the most?** **1 / 1 point**


Distribution of Sandwich Orders
Orders
0
20
40
60
80
100
120
140
Turkey
Roast Beef
Ham
Vegetarian
Sandwich Types

- (●) Turkey
- ( ) Roast Beef
- ( ) Ham
- ( ) Vegetarian
- ( ) Can't tell

✓ **Correct**

Good job! Turkey sandwiches were ordered over 140 times, while the remaining three types were ordered under 100 times.