# Question 1

(1/1 point)

A “permutation” refers to:

- a. Any ordered arrangement of objects ✔
- b. Any unordered arrangement of objects
- c. Any random collection of objects
- d. The number of possibilities in a sample space

**EXPLANATION**

A permutation refers to an ordered arrangements of objects. For example, the example given in class where the sequence of letters and numbers drawn would make up a complete license plate number is a permutation. One way to think of a permutation is as a list in a particular sequence.

*You have used 1 of 2 submissions*

## Question 2

(1/1 point)

True or false: In the Republican presidential nomination race example given in class, if all nine candidates shake hands with each other, we would use a permutation rule to count the number of handshakes total.

- a. True
- b. False ✔

**EXPLANATION**

This is false. A “permutation” refers to an ordered arrangement of objects. In this case, the ordering of handshakes is irrelevant because a handshake between candidate A and candidate B is the same as a handshake between candidate B and candidate A. So we are only interested in counting the total number of handshakes that occur. We should use a combination rule to count the number of handshakes. Specifically, if there are 9 candidates and pairings of 2 candidates shaking hands, there are 9-choose-2 handshakes total.

*You have used 1 of 1 submissions*