

- 1) Determine whether the random variable described is discrete or continuous. 1) _____
 The number of minutes you must wait in line at the grocery store
 A) discrete B) continuous

- 2) Determine whether the random variable described is discrete or continuous. 2) _____
 The number of coins in a jar
 A) continuous B) discrete

- 3) The sum of the probabilities of all the events in the sample space of a probability distribution must equal 1. 3) _____
 A) True B) False

- 4) The following distribution is *not* a probability distribution because _____. 4) _____

| | | | | | |
|--------|------|------|------|------|------|
| X | -2 | -1 | 0 | 1 | 2 |
| $P(X)$ | 0.10 | 0.24 | 0.41 | 0.15 | 0.28 |

- A) the probability values are not increasing
 B) the values of the variable are negative
 C) the probability values are not discrete
 D) the probability values do not add to 1

- 5) Fill in the missing value so that the following table represents a probability distribution. 5) _____

| | | | | |
|--------|------|------|---|------|
| x | 5 | 6 | 7 | 8 |
| $P(x)$ | 0.57 | 0.13 | ? | 0.17 |

- 6) The probability that a hockey team scores a total of 1 goal in a game is 0.125; 2 goals, 0.294; 3 goals, 0.405; 4 goals, 0.098; and 5 goals, 0.078. Construct the probability distribution for this discrete random variable and draw the graph. 6) _____

- 7) The following table presents the probability distribution of the number of vacations X taken last year for a randomly chosen family. Find $P(1 \text{ or more})$. 7) _____

| | | | | | |
|--------|------|------|------|------|------|
| x | 0 | 1 | 2 | 3 | 4 |
| $P(x)$ | 0.09 | 0.68 | 0.15 | 0.06 | 0.02 |

8) The following table presents the probability distribution of the number of dogs X owned for a randomly chosen family. Find the probability that a family took at least 3 vacations last year. 8) _____

| | | | | | |
|--------|------|------|------|------|------|
| x | 0 | 1 | 2 | 3 | 4 |
| $P(x)$ | 0.05 | 0.73 | 0.13 | 0.05 | 0.04 |

A) 0.09

B) 0.91

C) 0.05

D) 0.22

Answer Key

Testname: PRACTICE13

- 1) B
- 2) B
- 3) A
- 4) D
- 5) 0.13
- 6)

| | | | | | |
|--------|-------|-------|-------|-------|-------|
| X | 1 | 2 | 3 | 4 | 5 |
| $P(X)$ | 0.125 | 0.294 | 0.405 | 0.098 | 0.078 |

- 7) 0.91
- 8) A