

Name Solutions

1. A box contains 13 white cards numbered 1 through 13.

List the sample space associated with drawing a single card and noting the number printed on it.

$$S = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13\}$$

List the outcomes of the event the card drawn has a number greater than 6. Circle the best answer.

A)  $\{1, 2, 3, \dots, 13\}$

B)  $\{11\}$

C)  $\{7, 8, 9, 10, 11, 12, 13\}$

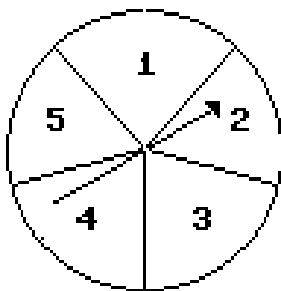
D)  $\{6, 7, 8, 9, 10, 11, 12, 13\}$

2. A group of 18 people are assigned numbers 1 through 18. List the outcomes of the event choosing a person with a number of 6 or less.

$$\{1, 2, 3, 4, 5, 6\}$$

What is the probability of this event?  $6/18$

- 3.



List the outcomes of sample space if the arrow in the figure is spun and the number representing the area in which the arrow points is recorded. (Sectors are of equal size.)

$$S = \{1, 2, 3, 4, 5\}$$

What is the probability of each outcome?

$$1/5$$

**Find the probability.**

4. A bag contains 4 red marbles, 3 blue marbles, and 6 green marbles.

List the sample space associated with drawing a marble out of the bag and noting its color.

$$S = \{ \text{red, blue, green} \}$$

What is the probability of choosing a blue marble?

$$P(\text{blue}) = 3/13$$

What is the probability of choosing a marble that is not blue?

$$P(\text{not blue}) = 10/13$$

5. A lottery game contains 21 balls numbered 1 through 21.

What is the probability of choosing a ball numbered 22?

$$P(22) = 0$$

What is the probability of choosing an even number?

$$P(\text{even}) = 10/21$$