Probability of Simple Events

The probability of an event describes the likelihood that the event will happen. It is the ratio of the favorable outcomes to the total number of possible outcomes.

 $P(\text{event}) = \frac{\text{number of favorable outcomes}}{\text{total number of possible outcomes}}$

Kento spins the pointer on the spinner.

Find the probability that the pointer lands on 3.

- 1. A favorable outcome is landing on 3. There is ______ section with 3.
- 2. There are eight sections on the spinner, so there are _____ possible outcomes for where the pointer lands.

3.
$$P(3) = \Box$$
, or 12.5%

Find the probability that it lands on a letter.

- **4.** A favorable outcome is landing on a letter. There are ______ sections with letters.
- 5. There are eight sections on the spinner, so there are _____ possible outcomes for where the pointer lands.
- **6.** $P(\text{letter}) = \frac{\Box}{\Box} = \frac{\Box}{2}$, or ____%

Find the probability that it lands on 2 or B.

- 8. There are eight sections on the spinner, so there are _____ possible outcomes for where the pointer lands.
- **9.** $P(2 \text{ or } B) = \frac{1}{\Box} = \frac{1}{\Box}, \text{ or } \frac{3}{2}\%$



Intervention

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Name

Probability of Simple Events (continued)

A bag contains letter tiles for the word OUTCOMES. Find each probability when one tile is drawn at random from the bag.

10. Drawing O **11.** Drawing T

12. Drawing a vowel 13. Drawing Z

A bag contains 8 blue marbles, 3 red marbles, 5 yellow marbles, and 4 green marbles. Find each probability when one marble is drawn at random from the bag.

14. Drawing a blue marble 15. Drawing a red or a yellow marble

21.

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Drawing an orange

Not drawing a red marble 17. Drawing a yellow marble 16.

A bag contains 12 apples, 6 oranges, 9 pears, and 3 mangoes. Find each probability when one piece of fruit is drawn at random from the bag.

- 19. 18. Drawing an apple Drawing a pear
- Drawing a piece of fruit 20.
- **Reasoning** A 12-sided solid has equal-sized faces numbered 22. 1 to 12. A 20-sided solid has equal-sized faces numbered 1 to 20. Joe thinks he has a better chance to roll a multiple of 4 using the 20-sided solid than the 12-sided solid. Is he correct? Explain.



Intervention

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