

12-8 Practice

Probability of Compound Events

Form K

You spin a spinner that has 8 equal-sized sections numbered 1 to 8. Find each probability.

1. $P(2 \text{ or } 4)$

2. $P(\text{odd or } 6)$

3. $P(\text{multiple of } 2 \text{ or odd})$

4. $P(\text{odd or greater than } 3)$

5. $P(\text{even or less than } 4)$

6. $P(\text{multiple of } 3 \text{ or multiple of } 2)$

7. Open-Ended What is an example of a compound event composed of two mutually exclusive events when you spin a spinner numbered 1 to 8?

You roll a black number cube and a white number cube. Find each probability.

8. $P(\text{black } 4 \text{ and white } 4)$

9. $P(\text{black even and white even})$

10. $P(\text{black } 3 \text{ or } 4 \text{ and white } 1 \text{ or } 6)$

11. $P(\text{black } 1 \text{ and white odd})$

12. $P(\text{black even and white greater than } 2)$

- 13.** The probability that Hannah will be late for dinner is $\frac{1}{2}$. What is the probability that she will be late for dinner two nights in a row?

You choose a tile at random from a bag containing 4 tiles with R, 2 tiles with S, and 3 tiles with T. You replace the tile and then choose again. Find each probability.

14. $P(\text{both S})$

15. $P(\text{both T})$

16. $P(\text{R then T})$

17. $P(\text{T then S})$

You choose a marble at random from a bag containing 3 yellow marbles, 8 red marbles, and 4 blue marbles. You pick a second marble without replacing the first. Find each probability.

18. $P(\text{red then blue})$

19. $P(\text{both yellow})$

20. $P(\text{yellow then blue})$

21. $P(\text{both red})$

- 22.** The committee to plan the homecoming dance has 4 juniors and 6 seniors. To decide who will plan the decorations, the advisor puts the names of the students in a hat and randomly picks one name. Then the advisor picks another name without replacing the first. What is the probability that both students picked are seniors?