

Practice 9-1

Probability

You spin a spinner numbered 1 through 10. Each outcome is equally likely. Find the probabilities below as a fraction, decimal, and percent.

1. $P(9)$

$\frac{1}{10}, 0.1, 10\%$

2. $P(\text{even})$

$\frac{1}{2}, 0.5, 50\%$

3. $P(\text{number greater than 0})$

$1, 1, 100\%$

4. $P(\text{multiple of 4})$

$\frac{1}{5}, 0.2, 20\%$

There are eight blue marbles, nine orange marbles, and six yellow marbles in a bag. You draw one marble at random. Find each probability.

5. $P(\text{blue marble})$

$\frac{8}{23}$

6. $P(\text{yellow marble})$

$\frac{6}{23}$

7. What marble could you add or remove so that the probability of drawing a blue marble is $\frac{1}{3}$?

~~Remove~~ a yellow or orange. Then there would be 8 blue of 24 marbles. $\frac{8}{24} = \frac{1}{3}$

Add

A box contains 12 slips of paper as shown. Each slip of paper is equally likely to be drawn. Find each probability.

red	blue	yellow	blue
yellow	red	blue	red
red	red	red	yellow

8. $P(\text{red})$

$\frac{1}{2}$

9. $P(\text{blue})$

$\frac{1}{4}$

10. $P(\text{yellow})$

$\frac{1}{4}$

11. $P(\text{red or blue})$

$\frac{3}{4}$

12. $P(\text{red or yellow})$

$\frac{3}{4}$

13. $P(\text{blue or yellow})$

$\frac{1}{2}$

14. $P(\text{not red})$

$\frac{1}{2}$

15. $P(\text{not blue})$

$\frac{3}{4}$

16. $P(\text{not yellow})$

$\frac{3}{4}$

You select a letter randomly from a bag containing the letters S, P, I, N, N, E, and R. Find the odds in favor of each outcome.

17. selecting an N

$\frac{2}{7}$

18. selecting an S

$\frac{1}{7}$