

**12-8 Probability of Compound Events**

Answer each question as indicated. Be sure to make your work/logic clear.

1. A spinner has 8 evenly-sized spaces, with numbers one to eight. If you spin this spinner once, find ...

$$P(3 \text{ or } 6) = \frac{2}{8} = \boxed{\frac{1}{4}}$$

2. A spinner has 10 evenly-sized spaces, with numbers 1-10. Numbers 3 to 7 are red, and the rest are blue. If you spin this spinner once, find ...

$$P(\text{odd number or blue}) = \frac{8}{10} = \boxed{\frac{4}{5}}$$

$\begin{array}{l} 3, 5, 7, 9 \\ / \\ 1, 2, 8, 10 \end{array}$

3. A bag contains 1 penny, 2 nickels, 3 dimes, and 4 quarters. If you draw a coin at random, then draw again without replacing what you drew the first time, find ...

P(dime then nickel)

$$= \frac{3}{10} \cdot \frac{2}{9} = \frac{6}{90} = \boxed{\frac{1}{15}}$$

4. You flip a coin a then roll a fair six-sided die. Find ...

$$P(\text{heads and even}) = \frac{1}{2} \cdot \frac{1}{2} = \boxed{\frac{1}{4}}$$