

p. 55

You have a drawer with five pairs of white socks, three pairs of black socks, and one pair of red socks. You choose one pair of socks at random each morning, starting on Monday. You do not put the socks you choose back in the drawer.

Find the probability of each event.

$$\text{Total} = 9$$

1. You select red socks on Monday.

$$\frac{1}{9}$$

2. You select black socks on Monday and white socks on Tuesday.

$$\frac{3}{9} \cdot \frac{5}{8} = \frac{15}{72} = \frac{5}{24}$$

3. You select white socks on Monday and Tuesday.

$$\frac{5}{9} \cdot \frac{4}{8} = \frac{20}{72} = \frac{5}{18}$$

An ice cream shop offers 33 flavors of ice cream and 7 toppings. How many different sundaes can the shop make using 1 flavor and 1 topping?

$$33 \cdot 7 = 231 \text{ sundaes}$$

Combination

Your aunt is ordering appetizers for her and her family. The restaurant offers 10 different appetizers. She will select 4 appetizers. How many different combinations of appetizers can your aunt possibly select?

$$\underline{10} \cdot \underline{9} \cdot \underline{8} \cdot \underline{7} = 5,040$$

Probability Review

Quiz: Tuesday, April 11