

Missing

Compound Probabilities Extra Practice

Find the missing probabilities:

1. M&Ms come in these color distributions:

Green: $\frac{1}{10}$ Red: $\frac{1}{5}$ Yellow: $\frac{1}{5}$ Brown: $\frac{3}{10}$ Blue: $\frac{1}{20}$ Orange: ?

$$\frac{1}{10} + \frac{1}{5} + \frac{1}{5} + \frac{3}{10} + \frac{1}{20} = \frac{2}{20} + \frac{4}{20} + \frac{4}{20} + \frac{6}{20} + \frac{1}{20} = \frac{17}{20}$$

$$1 - \frac{17}{20} = \frac{20}{20} - \frac{17}{20} = \frac{3}{20}$$

2. The probability of weather on July 4th is- Clouds: $\frac{3}{20}$ Rain: $\frac{1}{10}$ Sunshine: ?

$$\frac{3}{20} + \frac{2}{20} = \frac{5}{20}$$

$$1 - \frac{5}{20} = \frac{20}{20} - \frac{5}{20} = \frac{15}{20} = \frac{3}{4}$$

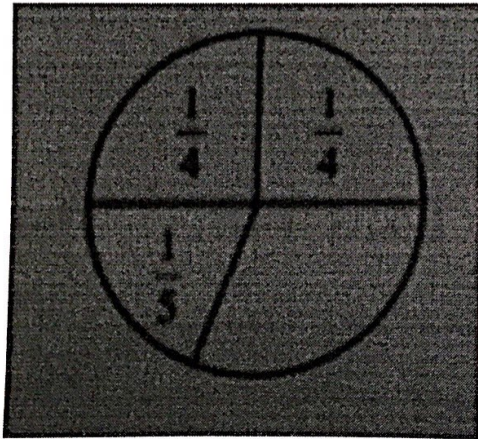
3. The probability of skiing on:

Monday: $\frac{1}{9}$ Tuesday: $\frac{2}{9}$ Wednesday: $\frac{1}{18}$ Thursday: ? Friday: $\frac{1}{18}$ Saturday: $\frac{1}{3}$ Sunday: $\frac{1}{6}$

$$\frac{1}{9} + \frac{2}{9} + \frac{1}{18} + \frac{1}{18} + \frac{1}{3} + \frac{1}{6} = \frac{2}{18} + \frac{4}{18} + \frac{1}{18} + \frac{1}{18} + \frac{6}{18} + \frac{3}{18} = \frac{17}{18}$$

$$1 - \frac{17}{18} = \frac{18}{18} - \frac{17}{18} = \frac{1}{18}$$

4.



$$\frac{1}{4} + \frac{1}{4} + \frac{1}{5} = \frac{5}{20} + \frac{5}{20} + \frac{4}{20} = \frac{14}{20}$$

$$1 - \frac{14}{20} = \frac{20}{20} - \frac{14}{20} = \frac{6}{20} = \frac{3}{10}$$

5. The ages of Senators from 1989:

<40: ? 40-49: $\frac{3}{10}$ 50-59: $\frac{9}{25}$ 60-69: $\frac{11}{50}$ 70-79: $\frac{1}{20}$ >80: $\frac{1}{50}$

$$\frac{3}{10} + \frac{9}{25} + \frac{4}{50} + \frac{1}{20} + \frac{1}{50} = \frac{30}{100} + \frac{36}{100} + \frac{22}{100} + \frac{5}{100} + \frac{2}{100} = \frac{95}{100}$$

$$1 - \frac{95}{100} = \frac{100}{100} - \frac{95}{100} = \frac{5}{100} = \frac{1}{20}$$