

More Basic Probability

7th Grade Math

Name: Key

Show each probability as a fraction and percent.

1) There are 5 white balls, 8 red balls, 7 yellow balls, and 4 green balls in a container. A ball is chosen at random.

a) What is the probability of choosing a red?

$$\frac{8}{24} = \frac{1}{3}$$
$$33.\overline{3}\%$$

b) What is the probability of choosing a green?

$$\frac{4}{24} = \frac{1}{6} \quad 16.\overline{6}\%$$

c) What is the probability of choosing either a red or white?

$$\frac{13}{24} \quad 54.\overline{16}\%$$

d) What is the probability of choosing neither white nor green?

$$\frac{15}{24} = \frac{5}{8} \quad 62.5\%$$

e) What is the probability of choosing anything other than yellow?

$$\frac{17}{24} \quad 70.\overline{83}\%$$

f) What is the probability of choosing black?

$$\frac{0}{24} = 0 \quad 0\%$$

2) A card is drawn from a single deck of 52 cards.

a) Find the probability of drawing a black king.

$$\frac{2}{52} = \frac{1}{26} \approx 3.8\%$$

b) Find the probability of drawing a white queen.

$$\frac{0}{52} = 0 \quad 0\%$$

c) Find the probability of drawing a club.

$$\frac{13}{52} = \frac{1}{4} \quad 25\%$$

d) Find the probability of drawing a red card.

$$\frac{26}{52} = \frac{1}{2} \quad 50\%$$

e) Find the probability of drawing a black jack.

$$\frac{2}{52} = \frac{1}{26} \approx 3.8\%$$

3) Numbers from 1 – 50 are written on a piece of paper and dropped into a box. A paper is chosen at random.

- a) Find the probability of choosing a multiple of 4 or multiple of 5.

$$\frac{20}{50} = \frac{2}{5} = 40\%$$

- b) Find the probability of choosing a number greater than 25.

$$\frac{25}{50} = \frac{1}{2} = 50\%$$

- c) Find the probability of choosing a number less than 30.

$$\frac{29}{50} = 58\%$$

- d) Find the probability of choosing a number greater than 10 but less than 30.

$$\frac{19}{50} = 38\%$$

- e) Find the probability of choosing a multiple of 12.

$$\frac{4}{50} = \frac{2}{25} = 8\%$$

4) A fair die is rolled.

- a) Find the probability of rolling an even number.

$$\frac{1}{2} = 50\%$$

- b) Find the probability of rolling an odd number less than 3.

$$\frac{1}{6} = 16.\bar{6}\%$$

- c) Find the probability of rolling a 7.

$$\frac{0}{6} = 0\%$$

- d) Find the probability of rolling an even prime number.

$$\frac{1}{6} = 16.\bar{6}\%$$