Basic Probability … Set 2

Algebra 2

Probability

Find the probability.

1) You flip a coin and then roll a fair six-sided die. The coin lands heads-up and the die shows a three.

2) A bag contains eight red marbles and eight blue marbles. You randomly pick a marble and then return it to the bag before picking another marble. The first marble is red and the second marble is blue.

3) You roll a fair six-sided die twice. The first roll shows a three and the second roll shows a three.

4) There are four nickels and eight dimes in your pocket. You randomly pick a coin out of your pocket and then return it to your pocket. Then you randomly pick another coin. The first coin is a nickel and the second coin is a dime.

5) A bag contains four red marbles and three blue marbles. You randomly pick a marble and then return it to the bag before picking another marble. The first marble is red and the second marble is blue.

6) You flip a coin twice. The first flip lands heads-up and the second flip lands tails-up.

7) A cooler contains ten bottles of sports drink: three lemon-lime flavored, four orange flavored, and three fruit-punch flavored. You randomly grab a bottle. Then you return the bottle to the cooler, mix up the bottles, and randomly select another bottle. Both times you get a lemon-lime drink.

8) You flip a coin twice. The first flip lands tails-up and the second flip lands heads-up.

Basic Probability … Set 2

Answers

Probability

1) $\frac{1}{12} \approx 0.083$

2) $\frac{1}{4} = 0.25$

3) $\frac{1}{36} \approx 0.028$

4) $\frac{2}{9} \approx 0.222$

5) $\frac{12}{49} \approx 0.245$

6) $\frac{1}{4} = 0.25$

7) $\frac{9}{100} = 0.09$

8) $\frac{1}{4} = 0.25$

Basic Probability … Set 2

9) There are seven nickels and seven dimes in your pocket. Three times, you randomly pick a coin out of your pocket, return it to your pocket, and then mix-up the change in your pocket. The first time, the coin is a nickel. The second time, it's a dime. The third time, it's a nickel.

10) You flip a coin four times and then roll a fair six-sided die once. The coin lands heads-up every time and the die shows a four.

11) You flip a coin five times and then roll a fair six-sided die once. The coin lands heads-up every time and the die shows a four.

12) There are eight nickels and eight dimes in your pocket. Three times, you randomly pick a coin out of your pocket, return it to your pocket, and then mix-up the change in your pocket. The first time, the coin is a nickel. The second time, it's a dime. The third time, it's a nickel.

13) A cooler contains twelve bottles of sports drink: four lemon-lime flavored, four orange flavored, and four fruit-punch flavored. Three times, you randomly grab a bottle, return the bottle to the cooler, and then mix up the bottles. All three times you get a lemon-lime drink.

14) There are five nickels and five dimes in your pocket. Three times, you randomly pick a coin out of your pocket, return it to your pocket, and then mix-up the change in your pocket. The first time, the coin is a nickel. The second time, it's a dime. The third time, it's a nickel.

15) A basket contains four apples and five peaches. Three times, you randomly select a piece of fruit, return it to the basket, and then mix the fruit. All three times, the fruit is an apple.

16) You flip a coin three times and then roll a fair six-sided die once. The coin lands tails-up every time and the die shows a one.

Basic Probability … Set 2

Answers

Probability

9) $\frac{1}{8} = 0.125$

10) $\frac{1}{96} \approx 0.01$

11) $\frac{1}{192} \approx 0.005$

12) $\frac{1}{8} = 0.125$

13) $\frac{1}{27} \approx 0.037$

14) $\frac{1}{8} = 0.125$

15) $\frac{64}{729} \approx 0.088$

16) $\frac{1}{48} \approx 0.021$