Algebra 1                                    Name_____ ID: 1

# Assignment
                                             Date_____ Period____

**Find the probability.**

1) A box of chocolates contains eight milk chocolates and six dark chocolates. You randomly pick a chocolate and eat it. Then you randomly pick another piece. Both pieces are milk chocolate.

2) There are four nickels and five dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. The first coin is a nickel and the second coin is a dime.

3) There are five nickels and seven dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. The first coin is a nickel and the second coin is a dime.

4) A basket contains seven apples and six peaches. You randomly select a piece of fruit and then return it to the basket. Then you randomly select another piece of fruit. Both pieces of fruit are apples.

5) There are five nickels and six 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.

6) You flip a coin and then roll a fair six-sided die. The coin lands tails-up and the die shows an odd number.

7) There are six 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. Both times the coin is a nickel.

8) A box of chocolates contains four milk chocolates and six dark chocolates. You randomly pick a chocolate and eat it. Then you randomly pick another piece. Both pieces are milk chocolate.

9) There are eight nickels and five dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. Both coins are nickels.

10) A bag contains eight red marbles and eight blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. Both marbles are red.

11) There are six nickels and five dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. Both coins are nickels.

12) There are five nickels and eight dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. Both coins are nickels.

13) A basket contains seven apples and seven peaches. You randomly select one piece of fruit and eat it. Then you randomly select another piece of fruit. The first piece of fruit is an apple and the second piece is a peach.

14) There are six nickels and eight dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. Both coins are nickels.

15) A spinner has an equal chance of landing on each of its seven numbered regions. You spin twice. The first spin lands in region seven and the second spin lands in region two.

16) A bag contains four red marbles and four blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. Both marbles are red.

17) You select a card from a standard shuffled deck of 52 cards. You return the card, shuffle, and then select another card. Both times the card is a diamond. (Note that 13 of the 52 cards are diamonds.)

18) Your sock drawer has six white socks, six brown socks, and six black socks. You randomly pick two socks and get a matching pair of black socks.

19) A box of chocolates contains seven milk chocolates and seven dark chocolates. You randomly pick a chocolate and eat it. Then you randomly pick another piece. The first piece is milk chocolate and the second piece is dark chocolate.

20) Your sock drawer has six white socks, four brown socks, and two black socks. You randomly pick a sock and put it on your left foot and then pick another sock and put it on your right foot. You leave the house with a white sock on your left foot and a brown sock on your right foot.

21) There are six nickels and four dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. Both coins are nickels.

22) Your sock drawer has two white socks, two brown socks, and six black socks. You randomly pick two socks and get a matching pair of black socks.

23) You flip a coin and then roll a fair six-sided die.  The coin lands heads-up and the die shows an even number.

24) A basket contains eight apples and six peaches.  You randomly select a piece of fruit and then return it to the basket.  Then you randomly select another piece of fruit.  The first piece of fruit is an apple and the second piece is a peach.

25) There are seven nickels and seven dimes in your pocket.  You randomly pick a coin out of your pocket and place it on a counter.  Then you randomly pick another coin.  The first coin is a nickel and the second coin is a dime.

26) A bag contains seven red marbles and five 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.

27) There are seven nickels and six dimes in your pocket.  You randomly pick a coin out of your pocket and place it on a counter.  Then you randomly pick another coin.  Both coins are nickels.

28) Your sock drawer has six white socks, four brown socks, and six black socks.  You randomly pick two socks and get a matching pair of black socks.

29) A basket contains six apples and eight peaches.  You randomly select one piece of fruit and eat it.  Then you randomly select another piece of fruit.  Both pieces of fruit are apples.

30) A basket contains six apples and four peaches.  You randomly select a piece of fruit and then return it to the basket.  Then you randomly select another piece of fruit.  Both pieces of fruit are apples.

31) A bag contains three red marbles and three blue marbles.  Another bag contains six green marbles and five yellow marbles.  You randomly pick one marble from each bag.  One marble is blue and one marble is yellow.

32) Your sock drawer has four white socks, two brown socks, and four black socks.  You randomly pick two socks and get a matching pair of black socks.

33) A bag contains five red marbles and three blue marbles.  You randomly pick a marble and then return it to the bag before picking another marble.  Both the first and second marbles are red.

34) A bag contains six red marbles and three blue marbles.  You randomly pick a marble and then pick a second marble without returning the marbles to the bag.  The first marble is red and the second marble is blue.

35) A box of chocolates contains seven milk chocolates and five dark chocolates. You randomly pick a chocolate and eat it. Then you randomly pick another piece. The first piece is milk chocolate and the second piece is dark chocolate.

36) Your sock drawer has six white socks, two brown socks, and two black socks. You randomly pick a sock and put it on your left foot and then pick another sock and put it on your right foot. You leave the house with a white sock on your left foot and a brown sock on your right foot.

37) A bag contains four red marbles and five blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. The first marble is red and the second marble is blue.

38) You select two cards from a standard shuffled deck of 52 cards. Both selected cards are diamonds. (Note that 13 of the 52 cards are diamonds.)

39) There are nine shirts in your closet, five blue and four green. You randomly select one to wear on Monday and then a different one on Tuesday. You wear blue shirts both days.

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

# Assignment

**Find the probability.**

1) A box of chocolates contains eight milk chocolates and six dark chocolates. You randomly pick a chocolate and eat it. Then you randomly pick another piece. Both pieces are milk chocolate.

$$\frac{4}{13} \approx 0.308$$

2) There are four nickels and five dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. The first coin is a nickel and the second coin is a dime.

$$\frac{5}{18} \approx 0.278$$

3) There are five nickels and seven dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. The first coin is a nickel and the second coin is a dime.

$$\frac{35}{132} \approx 0.265$$

4) A basket contains seven apples and six peaches. You randomly select a piece of fruit and then return it to the basket. Then you randomly select another piece of fruit. Both pieces of fruit are apples.

$$\frac{49}{169} \approx 0.29$$

5) There are five nickels and six 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.

$$\frac{30}{121} \approx 0.248$$

6) You flip a coin and then roll a fair six-sided die. The coin lands tails-up and the die shows an odd number.

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

7) There are six 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. Both times the coin is a nickel.

$$\frac{9}{49} \approx 0.184$$

8) A box of chocolates contains four milk chocolates and six dark chocolates. You randomly pick a chocolate and eat it. Then you randomly pick another piece. Both pieces are milk chocolate.

$$\frac{2}{15} \approx 0.133$$

9) There are eight nickels and five dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. Both coins are nickels.

$$\frac{14}{39} \approx 0.359$$

10) A bag contains eight red marbles and eight blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. Both marbles are red.

$$\frac{7}{30} \approx 0.233$$

11) There are six nickels and five dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. Both coins are nickels.

$\dfrac{3}{11} \approx 0.273$

12) There are five nickels and eight dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. Both coins are nickels.

$\dfrac{5}{39} \approx 0.128$

13) A basket contains seven apples and seven peaches. You randomly select one piece of fruit and eat it. Then you randomly select another piece of fruit. The first piece of fruit is an apple and the second piece is a peach.

$\dfrac{7}{26} \approx 0.269$

14) There are six nickels and eight dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. Both coins are nickels.

$\dfrac{15}{91} \approx 0.165$

15) A spinner has an equal chance of landing on each of its seven numbered regions. You spin twice. The first spin lands in region seven and the second spin lands in region two.

$\dfrac{1}{49} \approx 0.02$

16) A bag contains four red marbles and four blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. Both marbles are red.

$\dfrac{3}{14} \approx 0.214$

17) You select a card from a standard shuffled deck of 52 cards. You return the card, shuffle, and then select another card. Both times the card is a diamond. (Note that 13 of the 52 cards are diamonds.)

$\dfrac{1}{16} \approx 0.063$

18) Your sock drawer has six white socks, six brown socks, and six black socks. You randomly pick two socks and get a matching pair of black socks.

$\dfrac{5}{51} \approx 0.098$

19) A box of chocolates contains seven milk chocolates and seven dark chocolates. You randomly pick a chocolate and eat it. Then you randomly pick another piece. The first piece is milk chocolate and the second piece is dark chocolate.

$\dfrac{7}{26} \approx 0.269$

20) Your sock drawer has six white socks, four brown socks, and two black socks. You randomly pick a sock and put it on your left foot and then pick another sock and put it on your right foot. You leave the house with a white sock on your left foot and a brown sock on your right foot.

$\dfrac{2}{11} \approx 0.182$

21) There are six nickels and four dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. Both coins are nickels.

$\dfrac{1}{3} \approx 0.333$

22) Your sock drawer has two white socks, two brown socks, and six black socks. You randomly pick two socks and get a matching pair of black socks.

$\dfrac{1}{3} \approx 0.333$

23) You flip a coin and then roll a fair six-sided die. The coin lands heads-up and the die shows an even number.

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

24) A basket contains eight apples and six peaches. You randomly select a piece of fruit and then return it to the basket. Then you randomly select another piece of fruit. The first piece of fruit is an apple and the second piece is a peach.

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

25) There are seven nickels and seven dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. The first coin is a nickel and the second coin is a dime.

$$\frac{7}{26} \approx 0.269$$

26) A bag contains seven red marbles and five 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.

$$\frac{35}{144} \approx 0.243$$

27) There are seven nickels and six dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. Both coins are nickels.

$$\frac{7}{26} \approx 0.269$$

28) Your sock drawer has six white socks, four brown socks, and six black socks. You randomly pick two socks and get a matching pair of black socks.

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

29) A basket contains six apples and eight peaches. You randomly select one piece of fruit and eat it. Then you randomly select another piece of fruit. Both pieces of fruit are apples.

$$\frac{15}{91} \approx 0.165$$

30) A basket contains six apples and four peaches. You randomly select a piece of fruit and then return it to the basket. Then you randomly select another piece of fruit. Both pieces of fruit are apples.

$$\frac{9}{25} = 0.36$$

31) A bag contains three red marbles and three blue marbles. Another bag contains six green marbles and five yellow marbles. You randomly pick one marble from each bag. One marble is blue and one marble is yellow.

$$\frac{5}{22} \approx 0.227$$

32) Your sock drawer has four white socks, two brown socks, and four black socks. You randomly pick two socks and get a matching pair of black socks.

$$\frac{2}{15} \approx 0.133$$

33) A bag contains five red marbles and three blue marbles. You randomly pick a marble and then return it to the bag before picking another marble. Both the first and second marbles are red.

$$\frac{25}{64} \approx 0.391$$

34) A bag contains six red marbles and three blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. The first marble is red and the second marble is blue.

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

35) A box of chocolates contains seven milk chocolates and five dark chocolates. You randomly pick a chocolate and eat it. Then you randomly pick another piece. The first piece is milk chocolate and the second piece is dark chocolate.

$$\frac{35}{132} \approx 0.265$$

36) Your sock drawer has six white socks, two brown socks, and two black socks. You randomly pick a sock and put it on your left foot and then pick another sock and put it on your right foot. You leave the house with a white sock on your left foot and a brown sock on your right foot.

$$\frac{2}{15} \approx 0.133$$

37) A bag contains four red marbles and five blue marbles. You randomly pick a marble and then pick a second marble without returning the marbles to the bag. The first marble is red and the second marble is blue.

$$\frac{5}{18} \approx 0.278$$

38) You select two cards from a standard shuffled deck of 52 cards. Both selected cards are diamonds. (Note that 13 of the 52 cards are diamonds.)

$$\frac{1}{17} \approx 0.059$$

39) There are nine shirts in your closet, five blue and four green. You randomly select one to wear on Monday and then a different one on Tuesday. You wear blue shirts both days.

$$\frac{5}{18} \approx 0.278$$

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

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