SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Find the indicated probability.

1) A sample space consists of 14 separate events that are equally likely. What is the probability of each?

1) _____

2) On a multiple choice test, each question has 7 possible answers. If you make a random guess on the first question, what is the probability that you are correct?

2) _____

3) A bag contains 2 red marbles, 3 blue marbles, and 5 green marbles. If a marble is randomly selected from the bag, what is the probability that it is blue?

3) _____

4) If a person is randomly selected, find the probability that his or her birthday is in May. Ignore leap years.

4) _____

5) A class consists of 49 women and 92 men. If a student is randomly selected, what is the probability that the student is a woman?

5) _____

6) In a poll, respondents were asked whether they had ever been in a car accident. 127 respondents indicated that they had been in a car accident and 299 respondents said that they had not been in a car accident. If one of these respondents is randomly selected, what is the probability of getting someone who has been in a car accident? Round to the nearest thousandth, if necessary.

6) _____

From the information provided, create the sample space of possible outcomes.

7) Flip a coin twice.

7) _____

8) Flip a coin three times.

8) _____

9) Friskie is having her fifth litter. The prior litters have either been three normal pups or two normal pups and a runt. Assume the probability of either outcome is 50%.

9) _____

10) Both Fred and Ed have a bag of candy containing a lemon drop, a cherry drop, and a lollipop. Each takes out a piece and eats it. What are the possible pairs of candies eaten?

10) _____

11) Two white mice mate. The male has both a white and a black fur-color gene. The female has only white fur-color genes. The fur color of the offspring depends on the pairs of fur-color genes that they receive. Assume that neither the white nor the black gene dominates. List the possible outcomes. W = white and B = black

11) _____

Estimate the probability of the event.

12) Of 1085 people who came into a blood bank to give blood, 340 people had high blood pressure. Estimate the probability that the next person who comes in to give blood will have high blood pressure.

12) _____

13) In a certain class of students, there are 8 boys from Wilmette, 6 girls from Kenilworth, 8 girls from Wilmette, 7 boys from Glencoe, 3 boys from Kenilworth and 6 girls from Glenoce. If the teacher calls upon a student to answer a question, what is the probability that the student will be from Kenilworth?

13) _____

14) In a certain class of students, there are 10 boys from Wilmette, 5 girls from Winnetka, 8 girls from Wilmette, 5 boys from Glencoe, 3 boys from Winnetka and 8 girls from Glenoce. If the teacher calls upon a student to answer a question, what is the probability that the student will be a boy?

14) _____

Draw a tree diagram to find the number of possible outcomes.

15) Toss a single die, and then toss a coin.

15) _____

16) Pick a number from 1, 2, 3 or 4, and then toss a coin.

16) _____

17) Toss two coins.

17) _____

18) Toss three coins.

18) _____

Find the probability of each event.

19) If a single die is tossed once, find the probability of the following event.
A 4

19) _____

20) If a single die is tossed once, find the probability of the following event.
A 9

20) _____

21) If a single die is tossed once, find the probability of the following event.
An even number.

21) _____

22) If a single die is rolled, find the probability of the following event.
A number less than 2?

22) _____

Find the probability of each event if a single choice is made from a bag.

23) A bag contains 8 red marbles, 6 blue marbles, 2 yellow marbles, and 3 green marbles. What is the probability of choosing a red marble when one marble is drawn?

23) _____

24) A bag contains 5 red marbles, 8 blue marbles, and 4 green marbles. What is the probability of choosing a blue marble when one marble is drawn?

24) _____

25) A bag contains 15 balls numbered 1 through 15. What is the probability of selecting a ball that has an even number when one ball is drawn from the bag?

25) _____

26) A bag contains 25 balls numbered 1 through 25. What is the probability of choosing a ball numbered 26?

26) _____

1) $\dfrac{1}{14}$

2) $\dfrac{1}{7}$

3) $\dfrac{3}{10}$

4) $\dfrac{31}{365}$

5) $\dfrac{49}{141}$

6) 0.298
7) HH HT TH TT
8) HHH HHT HTH HTT THH THT TTH TTT
9) NNR NNN
10) LD-LD CD-LD LP-LP LD-CD CD-CD LD-LP LP-CD CD-LP LP-LD
11) WW, BW
12) 0.313
13) 0.237
14) 0.462
15) 12 outcomes
16) 8 outcomes
17) 4 outcomes
18) 8 outcomes

19) $\dfrac{1}{6}$

20) 0

21) $\dfrac{1}{2}$

22) $\dfrac{1}{6}$

23) $\dfrac{8}{19}$

24) $\dfrac{8}{17}$

25) $\dfrac{7}{15}$

26) 0