

**(1-4) You have an equally likely chance of choosing any integer from 1 through 50. Find the probability of the given event.**

1) A number less than 35 is chosen.

2) A prime number is chosen.

3) A multiple of 4 is chosen.

4) A perfect cube is chosen.

**(5-7) A card is randomly drawn from a standard deck of 52 cards. Find the probability of drawing the given card.**

5) A king

6) A red card

7) A face card (a king, queen, or jack)

**(8-9) Find the probability of winning the lottery according to the given rules. Assume numbers are selected at random.**

8) You must correctly select 6 out of 48 numbers. The order of the numbers is not important.

9) You must correctly select 4 numbers, each an integer from 0 to 9. The order of the numbers is important.

(10-13) The results of rolling a six-sided die 150 times are shown. Use the table to find the experimental probability of the given event. Compare your answer to the theoretical probability of the event.

Roll						
Number of occurrences	27	22	18	26	27	30

10) Rolling a 5

11) Rolling an even number

12) Rolling a number less than 5

13) Rolling any number but a 3

14) The standard archery target used in competition has a diameter of 80 centimeters. Find the probability that an arrow shot at the target will hit the center circle, which has a diameter of 16 centimeters. Assume the arrow is equally likely to hit any point inside the target.

