

# 12-7 Practice

## Theoretical and Experimental Probability

Form K

You spin a spinner that has 8 equal-sized sections numbered 1 to 8. Find each probability.

1.  $P(7)$

2.  $P(\text{odd number})$

3.  $P(\text{not } 2)$

4.  $P(\text{less than } 6)$

5.  $P(\text{multiple of } 2)$

6.  $P(\text{less than } 9)$

7. You roll a number cube. What is the probability that you will roll a number greater than 4?

8. The probability drawing a purple marble is  $\frac{3}{5}$ . What is the probability that the marble drawn will not be purple?

You choose a marble at random from a bag containing 5 yellow marbles, 3 black marbles, and 6 orange marbles. Find the odds.

9. odds in favor of yellow

10. odds in favor of orange

11. odds against black

12. odds against orange

13. You roll a number cube. What are the odds that you will roll a number less than 6?

**12-7 Practice** (Continued)

Form K

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**Theoretical and Experimental Probability**

**One hundred randomly selected students at East High School were asked to name their favorite subject. The results are as follows: Art: 12, Math: 20, English: 35, Social Studies: 33. Find the experimental probability that a student selected at random makes the given response.**

14.  $P(\text{Art})$

15.  $P(\text{Math})$

16.  $P(\text{English})$

17.  $P(\text{Social Studies})$

18. A soccer player predicts that the probability of her team winning the match is 64%. What is the probability that her team will not win?

19. Pasco usually makes 3 out of every 4 of his extra point kicks. What is the probability that he will miss his next kick?

20. There are 700 students at Washington High School. You survey 75 randomly selected students and find that 60 plan to go to college after graduation. How many students are likely to go to college after graduation?

21. The Acme Production Company randomly selects its products and checks for defects. If 2 of the 90 selected products are defective, how many defective products would you expect in the 2000 products manufactured?