

Name _____

Theoretical Probability Practice

For Exercises 1-12, you have six tiles numbered 1 through 6. Two of the tiles are red, three of the tiles are purple, and one of the tiles is green. Find the theoretical probability of the following events:

1. $P(\text{red})$
2. $P(\text{purple})$
3. $P(2)$
4. $P(\text{red or green})$
5. $P(1 \text{ or } 6)$
6. $P(\text{white})$
7. $P(\text{even})$
8. $P(\text{not red})$
9. $P(7)$
10. $P(\text{even or odd})$
11. $P(\text{not green})$
12. $P(\text{less than } 3)$

Suppose you roll a 6-sided number cube. Find each probability.

13. $P(5)$
14. $P(8)$
15. $P(1 \text{ or } 2)$
16. $P(\text{not } 6)$
17. $P(\text{less than } 5)$
18. $P(4 \text{ or higher})$

Name: _____

Probability

The marbles pictured below are gray, white, and black. They are placed in a bag and one is drawn at random.

White

Gray

White



Gray

Gray

Gray

1. Which color marble is least likely to be drawn from the bag? _____
2. What is the probability of drawing the black marble from the bag? _____
3. What is the probability of drawing a gray marble? _____
4. What is the probability of the drawing a white marble? _____
5. What is the probability of drawing a marble that is not white? _____
6. Would you be more likely to draw a marble that is not black or a marble that is not gray?
Explain your answer.

7. If three more black marbles were added to the bag,
what would be the probability of drawing a black marble? _____