

Name: _____

Determining Probability

Remember: $probability = \frac{\text{number of desired possibilities}}{\text{total number of possibilities}}$.

Determine the probability of an event **as a simplified fraction, decimal and percent.**

<p>1. In a deck of 52 cards, there are 4 Jacks. Two of the Jacks are black and two are red. What is the probability that a red Jack will be chosen at random from the deck?</p>	<p>2. In a deck of 52 cards, there are 12 face cards. Out of the 26 black cards in the deck, 6 of them are face cards. What is the probability that a card chosen at random will be a face card or a black card?</p>	<p>3. In a deck of 52 cards, there are 36 number cards and four aces. What is the probability that a card chosen at random will not be a number card or an ace?</p>
<p>4. The 12 face cards are removed from a deck of 52 cards. In the deck, there are four of each card (ace & numbers 2-10). What is the probability of choosing a 5 card at random?</p>	<p>5. The 12 face cards are removed from a deck of 52 cards. In the deck, there are four of each card (ace & numbers 2-10). If 3 of the face cards are put back into the deck, what is the probability of choosing a 5 card at random?</p>	<p>6. There are 26 black cards in a deck of 52. There are 36 number cards. Of those number cards, 18 are black. What is the probability that a card chosen at random will not be a black number card?</p>
<p>7. When rolling a 6-sided number cube (#1-6), what is the probability of rolling an even number?</p>	<p>8. When rolling a 6-sided number cube (#1-6), what is the probability of rolling a multiple of 3?</p>	<p>9. When rolling a 6-sided number cube (#1-6), what is the probability of rolling a number that is either odd or a factor of 6?</p>

<p>10. When rolling a 6-sided number cube (#1-6), what is the probability of rolling a number that is not a 4?</p>	<p>11. When rolling a 6-sided number cube (#1-6), what is the probability of rolling a 7?</p>	<p>12. When rolling a 6-sided number cube (#1-6), what is the probability of rolling a number that is not 7?</p>
<p>13. On a fair spinner, there are 8 equal sections: 3 are red, 2 are blue, 2 are black, and 1 is white. What is the probability of the spinner landing on red?</p>	<p>14. On a fair spinner, there are 6 equal sections: Green1, Green2, Green 3, Blue1, Blue2, and Blue 3. What is the probability of the spinner landing on a green or an odd number?</p>	<p>15. On a fair spinner, there are 4 equal sections: 1A, 1B, 1C, and 1D. What is the probability of the spinner landing on a 1?</p>
<p>16. In a bag of marbles, there are 7 striped marbles, 2 solid marbles, and 1 swirled marble. What is the probability of randomly choosing a solid marble?</p>	<p>17. In a bag of marbles, there are 12 purple marbles, 10 black marbles, and 3 yellow marbles. What is the probability of choosing a black or purple marble?</p>	<p>18. In a bag of marbles, there are 8 green marbles, 2 clear marbles, and 4 blue marbles. What is the probability of choosing a marble that is not green?</p>