

Name: _____ Period: _____ Date: _____

Theoretical and Experimental Probability Bell Work

Solve problems involving Theoretical Probability.

1. What is the probability of getting an odd number in tossing a die?

2. What is a probability of drawing a black card in a 52 deck of card?

3. What is the probability of drawing a queen in 52 deck of card?

In rolling a pair of dice

4. What is the probability of getting a sum of 5?

5. What is the probability of getting a sum greater than 9?

In tossing a coin

6. What is the probability of getting both tails?

7. What is the probability of not getting both head?

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Theoretical and Experimental Probability Bell Work

From a deck of cards, two cards are drawn at random. What is the probability that:

8. All two are jack?

9. All two are hearts?

10. All red black?

Theoretical and Experimental Probability Bell Work

Answer:

Solve problems involving Theoretical Probability.

1. What is the probability of getting an odd number in tossing a die?

$$P(E) = 3/6 \text{ or } 1/2$$

2. What is a probability of drawing a black card in a 52 deck of card?

$$P(E) = 26/52 \text{ or } 1/2$$

3. What is the probability of drawing a queen in 52 deck of card?

$$P(E) = 4/52 \text{ or } 1/13$$

In rolling a pair of dice

4. What is the probability of getting a sum of 5?

$$n(S) = 36; n(E) = \{(1,4), (4,1), (3,2), (2,3)\} = 4, P(E) = 4/36 \text{ or } 1/9$$

5. What is the probability of getting a sum greater than 9?

$$n(S) = 36; n(E) = \{(5,5), (6,4), (4,6), (6,5), (5,6), (6,6)\} = 6, P(E) = 6/36 \text{ or } 1/6$$

In tossing a coin

6. What is the probability of getting both tails?

$$n(S) = 4; n(E) = 1, \text{ then } P(E) = 1/4$$

7. What is the probability of not getting both head?

$$n(S) = 4; n(E) = 3, \text{ then } P(E) = 3/4$$

From a deck of cards, two cards are drawn at random. What is the probability that:

8. All two are jack?

$$n(S) = {}_{52}C_2 = 1326$$

$$n(E) = {}_4C_2 = 6$$

$$P(E) = 6/1326 \text{ or } 1/221$$

9. All two are hearts?

$$n(S) = {}_{52}C_2 = 1326$$

$$n(E) = {}_{13}C_2 = 78$$

$$P(E) = 78/1326 \text{ or } 1/17$$

10. All red black?

$$n(S) = {}_{52}C_2 = 1326$$

$$n(E) = {}_{26}C_2 = 325$$

$$P(E) = 325/1326 \text{ or } 25/102$$