SmartMathz

Probability of Compound Event

Grade 7 Probability & Data Worksheet
Date:_____ Name:_____

LET'S PRACTICE WITH PROBABILITY OF COMPOUND EVENT
Solve the following problems

1. Mark chose two cards randomly from a deck. What is the probability of getting an Ace and a Jack without replacement?

2. 4 coins are tossed and three six-sided dice are rolled. What is the probability of getting 4 heads and an odd number on a die?

3. Jackson chose four cards randomly from a deck. What is the probability of getting an Ace, an Jack, a Queen and a King without replacement?

4. 5 coins are tossed and three six-sided dice are rolled. What is the probability of getting 5 heads and a number divisible by two on a dice?

5. 6 coins are tossed and three six-sided dice are rolled. What is the probability of getting 6 heads and a number divisible by three on a dice?

6. Andy can select one of 14 different shirts, three of 8 different jeans and three of 7 Jackets from a shopping mall. In how many different ways can Jeff select a shirt, jeans and a jacket?

7. How many different ways you can arrange the letters in word "TWO"?

8. Mark chose two cards randomly from a deck. What is the probability of getting an Ace and a Jack without replacement?

9. A letter is to be selected from all 26 letters. What is the probability of choosing vowels?

10. 6 coins are tossed and three six-sided dice are rolled. What is the probability of getting 6 heads and a number divisible by three on a dice?

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Answers

Hint: Probability formulas are used to calculate the probabilities of events. Finding the probability of an event A happening can be calculated using the formula.

$$P(A) = \frac{\text{Number of times A occurs}}{\text{Total number of possible outcomes}}$$

$P(\text{not A}) = 1 - P(A)$

For mutually exclusive events: $P(\text{A or B}) = P(A) + P(B)$

For independent events: $P(\text{A and B}) = P(A) \times P(B)$

When draws are made without replacement, the probability changes after each draw.

1. $\frac{4}{663}$
2. $\frac{1}{32}$
3. $\frac{256}{6497400}$
4. $\frac{1}{12}$
5. $\frac{1}{192}$
6. 784
7. 6
8. $\frac{4}{663}$
9. $\frac{5}{26}$
10. $\frac{1}{192}$