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. Three students are chosen at random. Find the probability that all three were born on Wednesday.

   a. $\frac{1}{21}$ b. $\frac{3}{7}$ c. $\frac{3}{365}$ d. $\frac{1}{343}$

2. A bag contains 2 yellow marbles and 5 red marbles. Two marbles are drawn at random. One marble is drawn and not replaced. Then a second marble is drawn. What is the probability that the first marble is red and the second one is yellow?

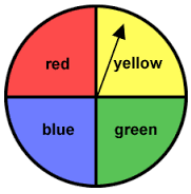
   a. $\frac{5}{2}$ b. $\frac{1}{5}$ c. $\frac{5}{21}$ d. $\frac{5}{42}$

3. The probability of rain on Monday is 0.1. The probability of rain on Tuesday is 0.8. What is the probability of rain on both Monday and Tuesday?

4. A coin is tossed and a die is rolled. What is the probability that the coin shows tails and the die shows a 3?

5. A coin is tossed and a number cube is rolled. What is the probability that the coin shows heads and the number cube shows an odd number?

6. John, Mark, and Tim are leading a three mile race. If they take first, second, and third place, what are the possible ways they could come in first, second, and third? (In the options, J stands for John, M for Mark and T for Tim)

7. 

   Lucy has the spinner pictured and spins it twice in a row. What is the probability that she lands on blue first and then on yellow or green?

   a. $\frac{1}{16}$ b. $\frac{1}{6}$ c. $\frac{1}{8}$ d. $\frac{3}{4}$

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

1. A
2. C
3. 0.08
4. $\frac{1}{12}$
5. $\frac{1}{4}$
6. JMT, JTM, MJT, MTJ, TMJ, TJM
7. C