SmartMathz

Probability of Compound Event

Grade 7 Probability & Data Worksheet

Date:_____ Name:_____

LET'S PRACTICE WITH PROBABILITY OF COMPOUND EVENT

Choose the correct answer from the options provided

1. What is the complete sample space of flipping two coins?
   a. HH,TT b. HT,TH c. HH,HT,TT d. HH,HT,TT,TH

2. How many outfits are possible with 5 pairs of jeans, 8 t-shirts, and 2 pairs of shoes?
   a. 15 b. 40 c. 80 d. 10

3. A box contains 3 red marbles, 6 blue marbles and 1 white marble. The marbles are selected 1 at a time and not replaced. Find P(blue and red)
   a. $\frac{9}{50}$ b. $\frac{1}{50}$ c. $\frac{3}{50}$ d. $\frac{6}{50}$

4. There are 5 red roses, 3 yellow roses, and 8 white roses in a tray. If Stephanie picked 2 roses one after the other without replacing, then what is the probability of picking a white rose first and a red rose next?
   a. $\frac{1}{6}$ b. $\frac{5}{6}$ c. $\frac{1}{3}$ d. $\frac{2}{3}$

5. A jar contains 2 green marbles, 4 blue marbles, 3 yellow marbles, and 2 black marbles. A marble is chosen at random from the jar and replaced. Then a second marble is chosen at random. Find the probability of the first marble being green and the second marble being yellow.
   a. $\frac{4}{121}$ b. $\frac{8}{121}$ c. $\frac{3}{121}$ d. $\frac{6}{121}$

6. A box contains 5 purple marbles, 3 green marbles and 2 orange marbles. Draws are made without replacement. P(orange,green)
   a. $\frac{1}{15}$ b. $\frac{2}{15}$ c. $\frac{3}{31}$ d. $\frac{1}{5}$

7. Jim picks a diamond out of a deck of cards, replaces it and gets a diamond again. What is the probability this happened. (There are 13 diamonds, and 52 cards in a deck)
   a. $\frac{1}{16}$ b. $\frac{2}{13}$ c. $\frac{4}{17}$ d. $\frac{1}{21}$

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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. D
2. C
3. B
4. A
5. D
6. A
7. A