## SmartMäthz

## Probability of Compound Event

$\qquad$ Name:

## LET'S PRACTICE WITH PROBABILITY OF COMPOUND EVENT

Choose the correct answer from the options provided

1. In a box there are 3 red pens, 2 green pens, and 1 blue pen. What is the probability of picking a red pen, replacing it, and then picking a green pen?
a. $\frac{1}{2}$
b. $\frac{4}{11}$
c. $\frac{1}{6}$
d. $\frac{2}{3}$
2. What is the probability of rolling an even number on the first roll of a number cube and rolling an odd number on the second roll?
a. $\frac{1}{4}$
b. 1
c. $\frac{1}{8}$
d. $\frac{1}{2}$
3. A car company offers its midsize car with 2 doors, 4 doors, or as a convertible. The car is available in 3 exterior colors and 2 interior colors. Find the number of different midsize cars the company can produce.
a. 12
b. 18
c. 36
d. 24
4. If you roll two fair six-sided dice, what is the probability that the dice show the same number?
a. $\frac{1}{6}$
b. 2
c. $\frac{1}{7}$
d. $\frac{6}{1}$
5. If you choose 1 scoop of ice cream from 12 flavors and any 1 topping from a choice of 8 , how many different ice-cream sundaes can you make?
a. 58
b. 192
c. 20
d. 96
6. The daily special at McDonalds offers one of three featured pies and your choice of coffee, tea, milk or juice. How many ways can you order the special?
a. 12
b. 8
c. 15
d. 6
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 green?
a. $\frac{1}{16}$
b. $\frac{1}{6}$
c. $\frac{1}{8}$
d. $\frac{3}{4}$

## Probability of Compound Event

## 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.

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

$\mathrm{P}(\operatorname{not} \mathrm{A})=1-\mathrm{P}(\mathrm{A})$
For mutually exclusive events: $\mathrm{P}(\mathrm{A}$ or B$)=\mathrm{P}(\mathrm{A})+\mathrm{P}(\mathrm{B})$
For independent events: $\mathrm{P}(\mathrm{A}$ and B$)=\mathrm{P}(\mathrm{A}) \times \mathrm{P}(\mathrm{B})$

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