

## Probability of Dependent Events

Find the probability of the dependents events

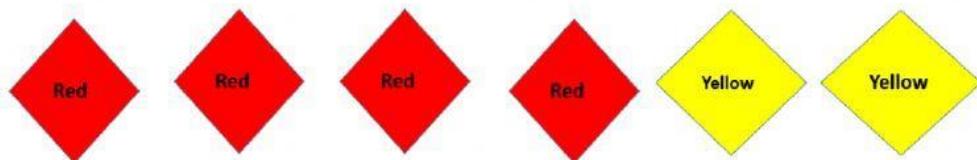
A jar contains 4 blue and 5 white marbles. What is the probability of picking a blue marble without replacing it, select another blue card. What is the probability?

$$P(\text{blue, then blue}) = P(\text{blue}) \times P(\text{blue})$$

$$\frac{4}{9} \times \frac{3}{8} = \frac{12}{72} \text{ or } \frac{1}{6}$$

Select one card at random. Without replacing the card, select a second card.

Find the probabilities,



1.  $P(\text{red, then yellow}) = \underline{\hspace{2cm}}$

2.  $P(\text{yellow, then red}) = \underline{\hspace{2cm}}$

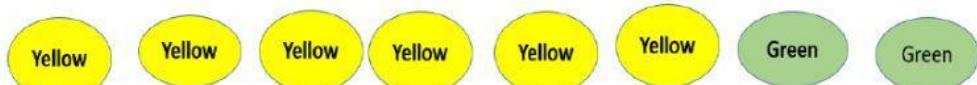
3.  $P(\text{red, then red}) = \underline{\hspace{2cm}}$

4.  $P(\text{yellow, then yellow}) = \underline{\hspace{2cm}}$

5.  $P(\text{red, black}) = \underline{\hspace{2cm}}$

6.  $P(\text{yellow, white}) = \underline{\hspace{2cm}}$

A jar contains these balls. Select one ball at random. Without replacing the ball, select a second ball. Find the probabilities.



7.  $P(\text{yellow, then yellow}) = \underline{\hspace{2cm}}$

8.  $P(\text{yellow, then green}) = \underline{\hspace{2cm}}$

9.  $P(\text{green, then yellow}) = \underline{\hspace{2cm}}$

10.  $P(\text{green, then green}) = \underline{\hspace{2cm}}$

Select a card at random. Without replacing the card, select a second card. Find the probabilities,



11.  $P(\text{white, white}) =$  \_\_\_\_\_

12.  $P(\text{blue, green}) =$  \_\_\_\_\_

13.  $P(\text{blue, blue}) =$  \_\_\_\_\_

14.  $P(\text{white, green}) =$  \_\_\_\_\_

15.  $P(\text{green, purple}) =$  \_\_\_\_\_

16.  $P(\text{green, red}) =$  \_\_\_\_\_