Warm Up 1/18/23

A bag contains 3 red, 5 blue, 6 yellow and 4 green marbles.

1. Find P(picking a green)

2. Find P(picking a red or yellow)

3. Find P(not picking a blue)

# 22.2-22.3Probability of Independent and Dependent Events

If events are independent (events whose outcomes don't influence each other) then

$$P(A \cap B) = P(A) \cdot P(B)$$

or

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

Find P(rolling a 6 and tossing a tail)

Find P(picking a jack two times in a row)
(you put the first card back in the deck)

If the events are dependent, the probability of the second event will change depending on the first event

$P(A \text{ and } B) \text{ or } P(A \cap B) = P(A) \cdot P(B|A)$

where $P(B|A)$ is the conditional probability of event B given that event A has occurred.

Find P(picking a 4, keeping it and picking a 5)

Find P(picking a Jack, keeping it and picking another Jack)