

# Week 28 Homework: Types of Probability

**Due: Thursday 3-29-18**

## Sample Space

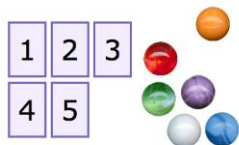
1.) You flip a coin and spin the spinner. How many outcomes are possible?



2.) You roll a die and pick a marble. How many outcomes are possible? (Each marble is a different color)



3.) You pick a card and pick a marble. How many outcomes are possible? (Each marble is a different color)



## Theoretical Probability of Simple Events

*Simplify your answer and write it as a fraction or whole number.*

1.) Mitzi owns 16 T-shirts, 4 of which are yellow. If Mitzi randomly selects a T-shirt to wear, what is the probability it will be yellow?

$P(\text{yellow}) = \underline{\hspace{2cm}}$

2.) Rita is a makeup artist and carries a lot of makeup around with her. She has 10 cosmetics in her bag, including 2 mascaras. What is the probability that a randomly selected makeup item from her bag will be a mascara?

$P(\text{mascara}) = \underline{\hspace{2cm}}$

3.) A university class has 17 students enrolled, 6 of whom are juniors. What is the probability that a randomly chosen student will be a junior?

$P(\text{junior}) = \underline{\hspace{2cm}}$

## Compound Events

1.) You spin the spinner twice.



What is  $P(\text{even, even})$ ? Write your answer as a percentage.

$P(\text{even, even}) = \underline{\hspace{2cm}} \%$

2.) You pick a card at random. Then, put the first card back, and you pick a second card at random.



What is  $P(\text{black, white})$ ?

3.) You pick a card at random, put it back, and then pick another card at random.



What is  $P(2, \text{even})$ ? Write your answer as a percentage.