



**Math Virtual Learning**

# **Algebra IIB**

**May 15, 2020**



Lesson: May 15, 2020

**Objective/Learning Target:**

Students will be able to interpret and create venn diagrams

# Bell Ringer

There are 6 blue marbles, 3 red, and 5 yellow marbles in a bag. What is the probability of randomly pulling out a red marble and a yellow marble?

Answer: 8%

# Lesson

There are two videos to watch for this lesson. The first [video](#) will take you through the most basic venn diagram with two example problems. The second [video](#) has examples of venn diagrams with 3 categories. You can also read about it to further understand venn diagrams by clicking [here](#). These 3 options used together will give you the best option of understanding.

# Practice

1. A survey of 230 exotic pet owners shows that:
  - 78 people own tarantulas
  - 81 people own chinchillas
  - 63 people own pot-belly pigs
  - 46 people own chinchillas and tarantulas
  - 62 people own exactly two of these exotic pets
  - 31 people own tarantulas and pot-belly pigs
  - 16 people own tarantulas, chinchillas, and pot-belly pigs

Questions to solve:

- a. How many people do not own tarantulas, chinchillas, or pot-belly pigs?
- b. How many people own pot-belly pigs?
- c. How many people only own chinchillas?

2. A study of 200 books written since 2000 shows that there are three common character types: the villain, the female heroine, and the computer genius.

128 books have a villain or a female heroine

82 books have a female heroine

68 books do not have a female heroine, a villain, or a computer genius

54 books have a villain and a computer genius

28 books have all three character types

49 books have a female heroine and a computer genius

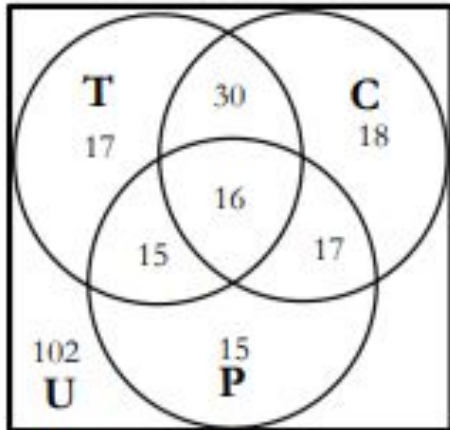
51 books have a villain and a female heroine

Questions to solve:

- How many books include only a computer genius and a villain?
- How many books do not have a computer genius?
- How many books have a female heroine only?

# Answers

1. a. 102, b. 63, c. 18



2. a. 26, b. 121, c. 10

