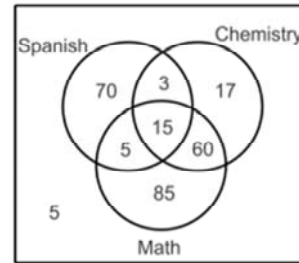


## p. 62-63 Venn Diagrams and Probability

p. 62

**Example 1.**

In a class of 260 seniors, 93 study Spanish, 95 study Chemistry, 165 study Mathematics, 18 study Spanish and Chemistry, 75 study Chemistry and Math, 20 study Math and Spanish and 15 study all three subjects.



Use the Venn diagram to find the following probabilities:

- a.) What is the probability of students taking just Spanish?

$$\frac{70}{260} \approx 27\%$$

- b.) What is the probability of students taking math and Chemistry but not Spanish?

$$\frac{60}{260} \approx 23\%$$

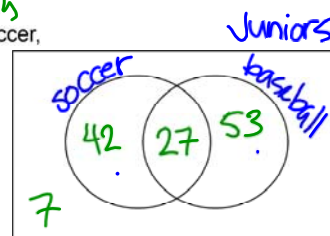
- c.) What is the probability of a student taking none of these subjects?

$$\frac{5}{260} \approx 2\%$$

**Example 2.**

In the junior class, 42 students play soccer, 53 play baseball and 27 play both and 7 play neither.

Make a Venn diagram.



Use your diagram to determine the following probabilities:

- a.) A student plays soccer:

$$\frac{69}{129} \approx 53\%$$

- b.) A student plays both sports:

$$\frac{27}{129} \approx 21\%$$

- c.) A student plays neither sport

$$\frac{7}{129} \approx 5\%$$

- d.) A student plays at least one sport.

$$\frac{122}{129} \approx 95\%$$

# Venn Diagrams and Probability Homework.