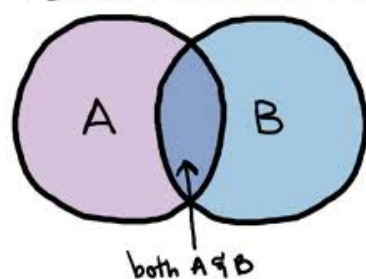
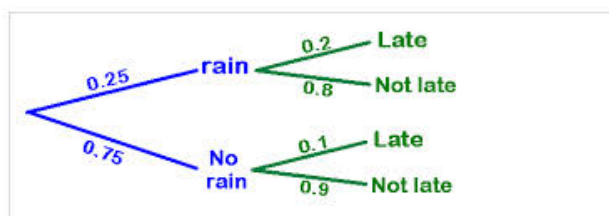


VENN DIAGRAM!



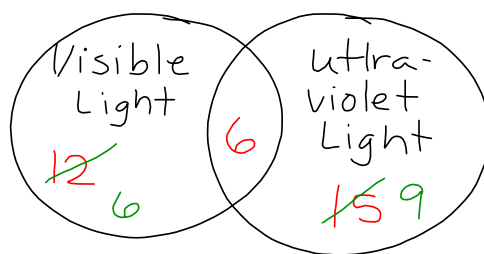
Venn and Tree Diagrams



Name _____ Period ____

I can _____

9)



9

$$\frac{21}{30} = .7$$

$$\frac{12}{30} + \frac{15}{30} - \frac{6}{30} = \frac{21}{30} = .7$$

$$22) -3 \pm \sqrt{2}$$

Roots

$$-3 + \sqrt{2}$$

$$-3 - \sqrt{2}$$

$$(x + 3 - \sqrt{2})(x + 3 + \sqrt{2}) = 0$$

$$x^2 + 3x + \sqrt{2}x$$

$$3x$$

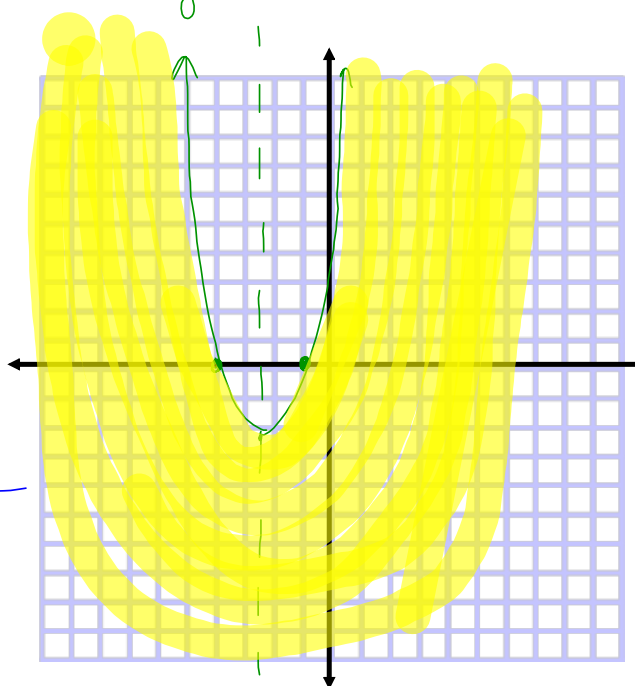
$$+9 + 3\sqrt{2}$$

$$-\sqrt{2}x - 2 - 3\sqrt{2}$$

$$x^2 + 6x + 7 = 0$$

$$20) y \leq x^2 + 5x + 4 \quad V: (-2.5, -2.25)$$

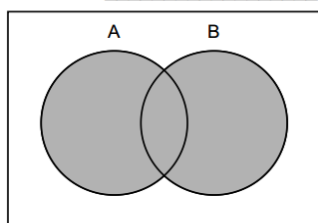
$$y \leq (x+4)(x+1)$$



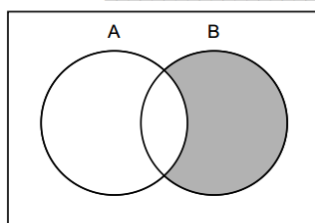
Can you read a venn diagram??

Name the Shaded Regions for the Venn Diagrams

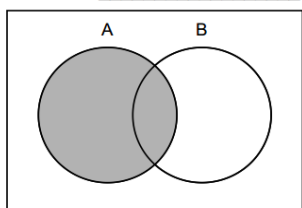
1) Region $A \cup B$



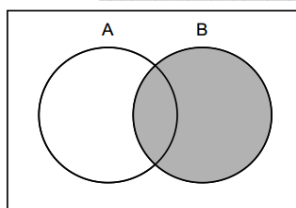
2) Region $B \cap A'$ $B - A$



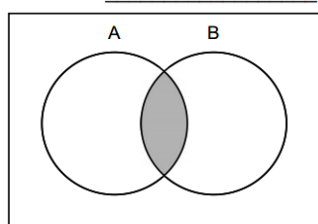
3) Region A



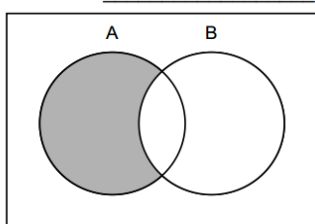
4) Region B



5) Region $A \cap B$

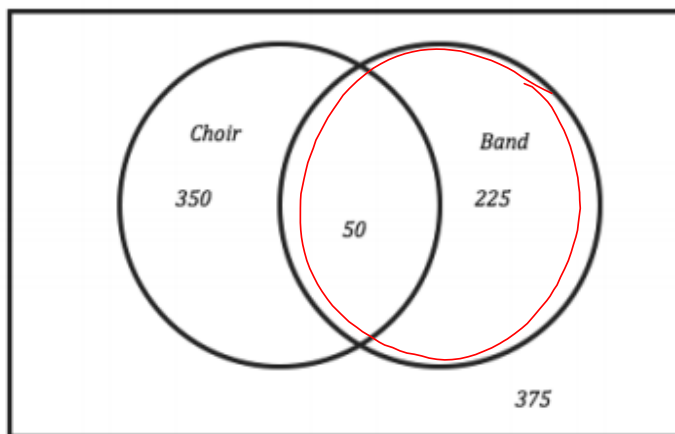


6) Region $A - B$



Reading a Venn Diagram

For each Venn Diagram provided answer the questions.



1. How many students were surveyed?

1000

2. What were the students asked?

Do you participate in choir or band

3. How many students are in both or both?
choir and band?

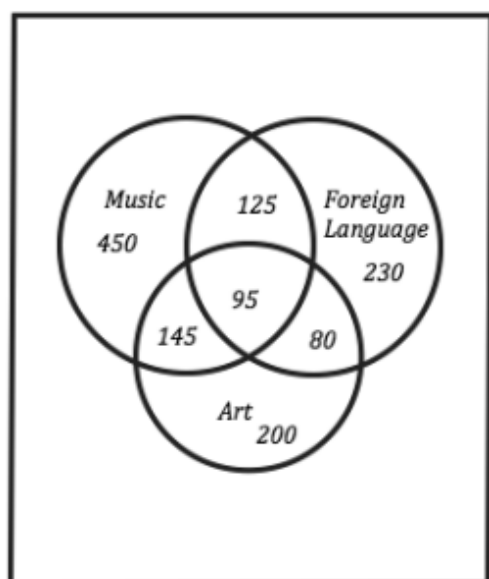
50

4. How many students are not in either
choir or band?

375

5. What is the probability that a
randomly selected student would be in
band?

$$\frac{275}{1000} = 27.5\%$$



This Venn Diagram represents enrollment in some of the elective courses.

6. What does the 95 in the center tell you?

Music, FL, & Art

7. What does the 145 tell you?

Music & Art

8. How many total students are represented in the diagram? 1325

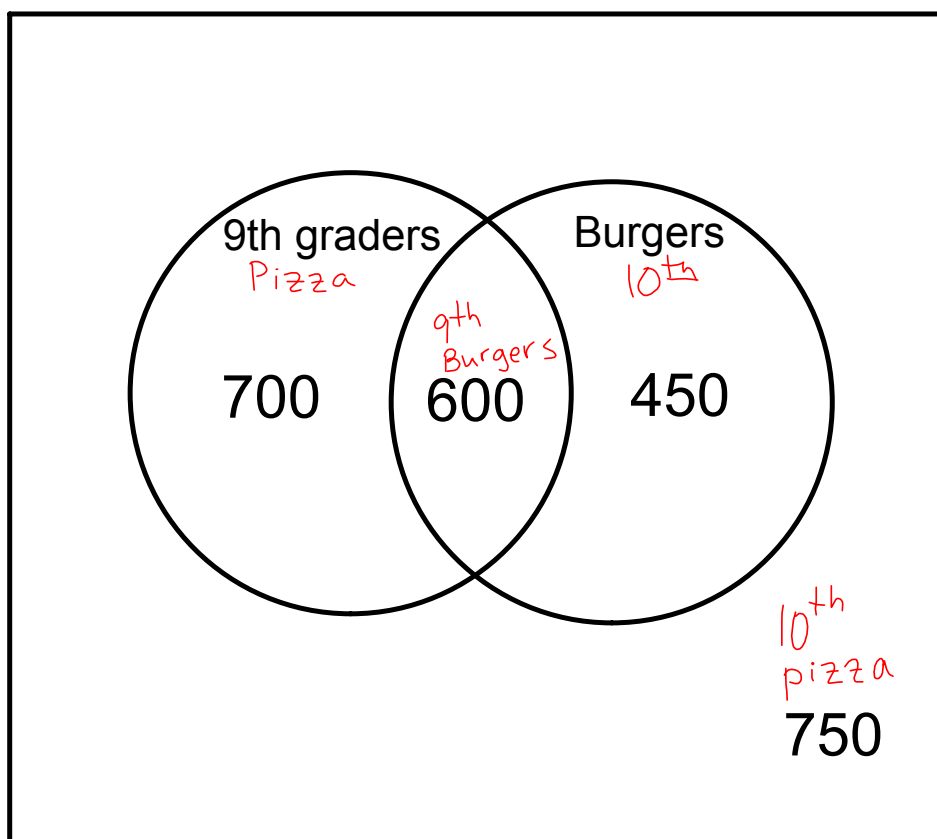
9. Which elective class has the least number of students enrolled?

Art 520

Music 815

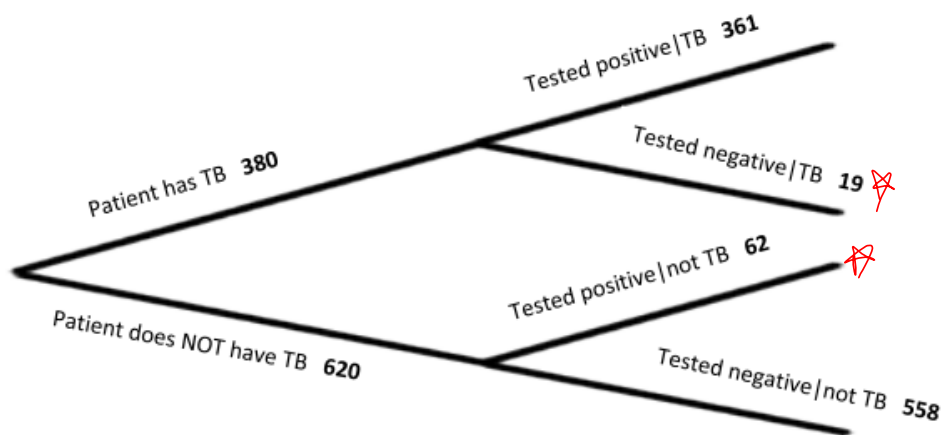
FL 530

9th and 10th graders were surveyed during lunch. They were asked what grade they are in as well as if they prefer Pizza or Hamburgers. A Venn diagram has been created. Label what each number represents.



Tree Diagram

Tuberculosis (TB) can be tested in a variety of ways, including a skin test. If a person has tuberculosis antibodies, then they are considered to have TB. Below is a tree diagram representing data based on 1,000 people who have been given a skin test for tuberculosis.



How many people were tested? 1000

How many tested positive? 423

What percent is that?

$$\frac{423}{1000} = 42.3\%$$

How many are false positives? 62

What percent is that?

$$\frac{62}{1000} = 6.2\%$$

In this situation, explain the consequences of errors?

False negative 19

What percent 1.9%

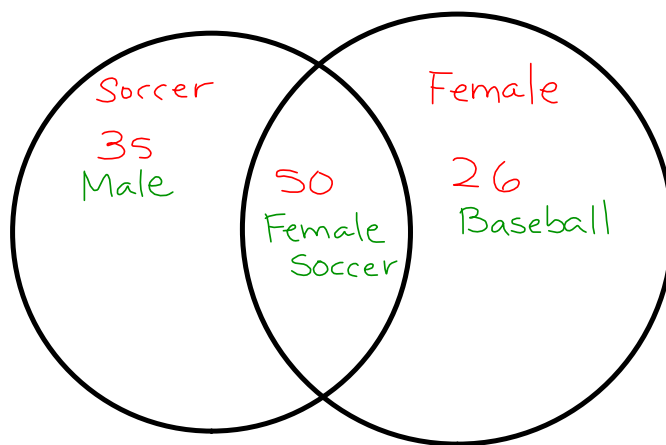
Name one more observation you noticed.

Use the space you were provided to make a tree diagram for the following problem.

Problem:

Summer's here and the ice cream truck is in town. The truck offers 3 flavors of ice cream: vanilla, chocolate, and strawberry. The topping choices are walnuts, sprinkles, and chocolate fudge and cookie crumbs. Zoe only has enough money for one scoop with one topping. How many choices does she have?

Use a tree diagram to show how many total possible combinations there are.



$$P(\text{soccer}) = \frac{85}{141}$$

$$P(\text{soccer} | \text{females}) = \frac{50}{76} = .65$$

Baseball 30
Male

$$11) 1610$$

$$12) P(RHP|LHB) = \frac{255}{417}$$

$$13) P(LHP|RHB) = \frac{693}{1193}$$

$$14) P(LHP) = \frac{855}{1610}$$