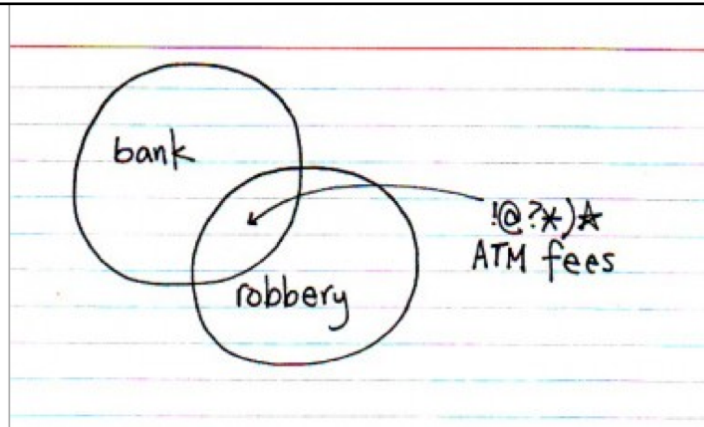


 <http://thisisindexed.com/>

 <http://www.vennthattune.com>



Pick up and Start the Warm Up

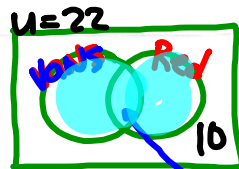
The dastardly price of convenience.

Posted on April 6, 2012 by Jessica Hagy

1. A car dealer has 22 vehicles on his lot. If 8 of the vehicles are vans and 6 of the vehicles are red, and 10 vehicles are neither vans nor red, how many red vans does he have on his lot?

2. In Ms. Wright's English class, 16 students are in band, 7 students play sports, 3 students participate in both activities, and 9 students are not in band and do not play sports. How many students are in Ms. Wright's English class?

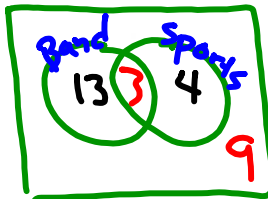
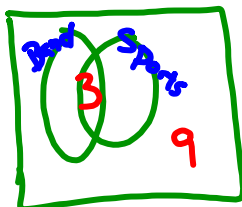
1. A car dealer has 22 vehicles on his lot. If 8 of the vehicles are vans and 6 of the vehicles are red, and 10 vehicles are neither vans nor red, how many red vans does he have on his lot?



$$12 = 8 + 6 - x$$

$$x = 2$$

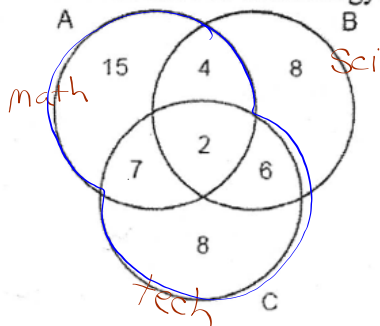
2. In Ms. Wright's English class, 16 students are in band, 7 students play sports, 3 students participate in both activities, and 9 students are not in band and do not play sports. How many students are in Ms. Wright's English class?



$$13 + 3 + 4 + 9$$

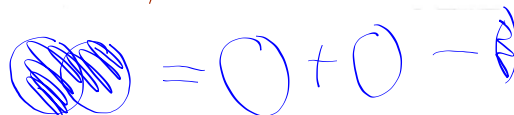
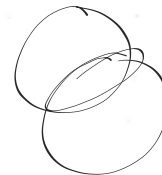
$$= 29 \text{ students}$$

3. The accompanying Venn diagram shows the number of students who take various courses. All students in circle *A* take mathematics. All in circle *B* take science. All in circle *C* take technology. What percentage of the students take mathematics or technology?



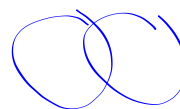
$A \cup C$

$$\frac{42}{50} \rightarrow 84\%$$

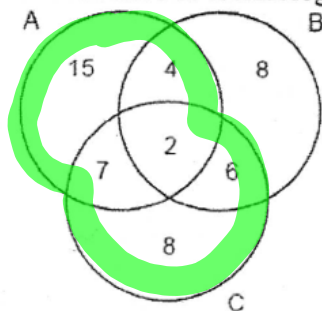


$$42 = 28 + 20 - 6$$

28 A
20 B



3. The accompanying Venn diagram shows the number of students who take various courses. All students in circle *A* take mathematics. All in circle *B* take science. All in circle *C* take technology. What percentage of the students take mathematics or technology?



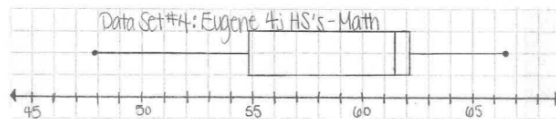
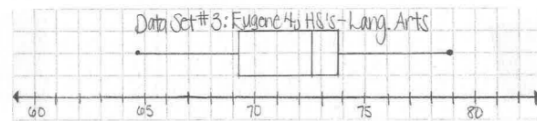
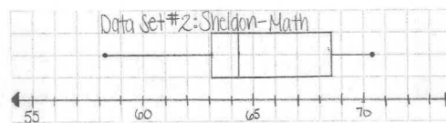
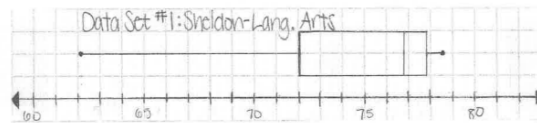
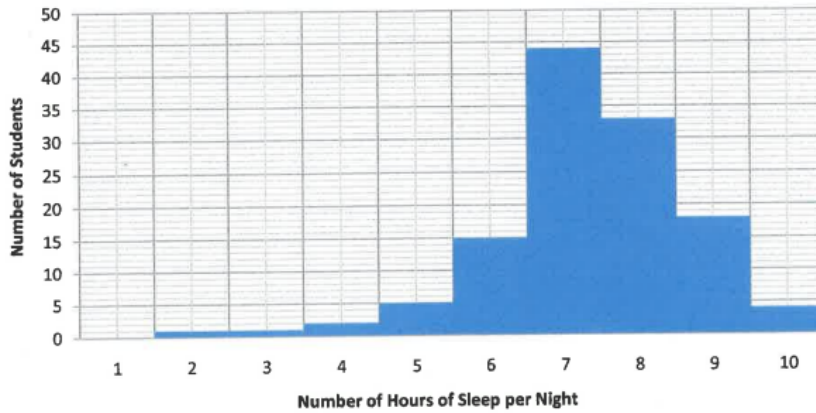
math or tech

$$15 + 4 + 7 + 2 + 8 + 6 = 42$$

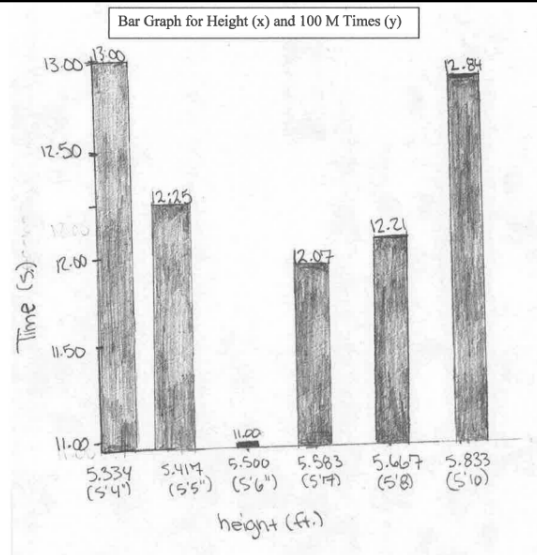
$$\frac{42}{50} = .84$$

84%
take math or tech

Sheldon High School Students and Their Average Amount of Sleep per Night



Graph
paper
?

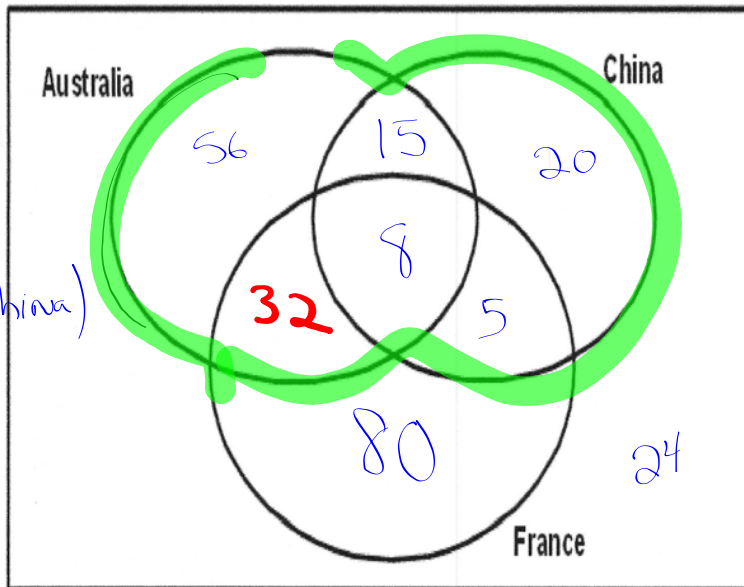


Today's Aim:

- Analyze Venn Diagrams
- Use Venn Diagrams to solve problems.
- Continue to practice using Venn Diagrams and Sets.

A group of students were asked if they had ever visited France, China and Australia

- 24 had visited none of the countries
- 111 had visited Australia
- 48 had visited China
- 125 had visited France
- 23 had been to Australia and China
- 40 had been to Australia and France
- 13 had been to France and China
- 8 had been to all three

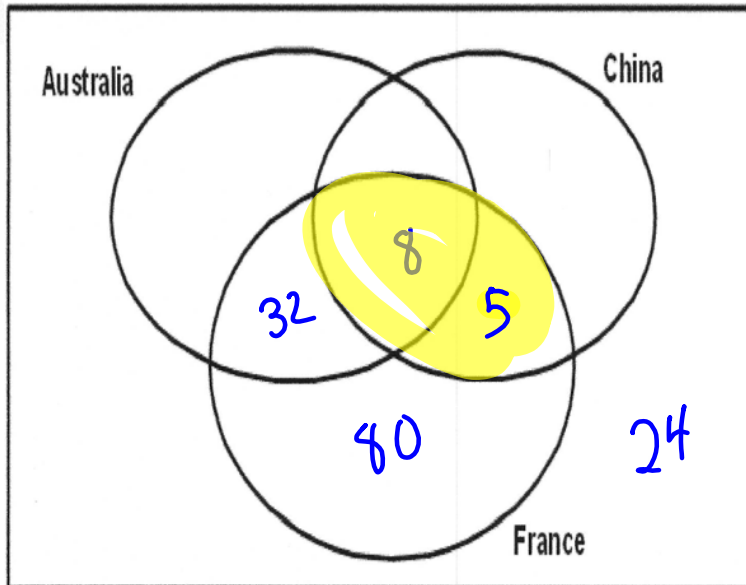


$P(\text{AUSTRALIA OR china})$

$P(A \text{ AND } C)$

A group of students were asked if they had ever visited France, China and Australia

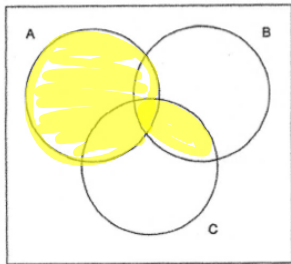
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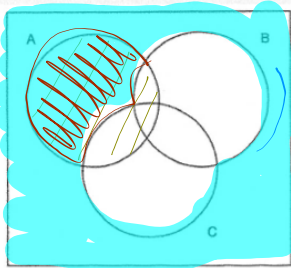
Shading

3 set Venn Diagrams

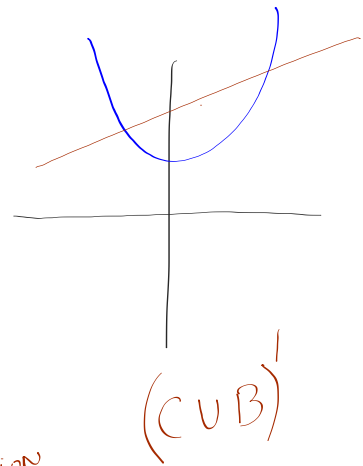
will work on for bit.



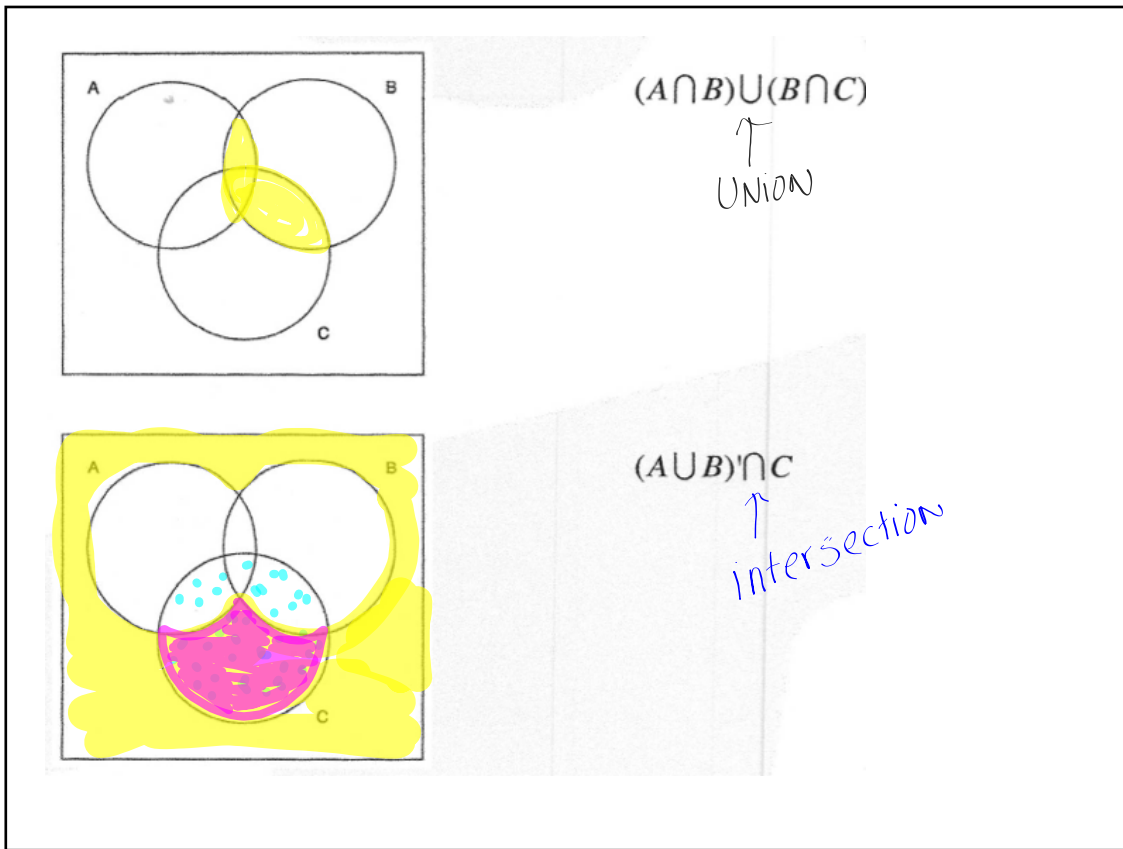
$A \cup (B \cap C)$
↑
union



$(C \cup B) \cap A$
↑
intersection



$(C \cup B)'$

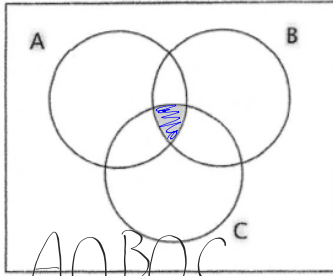


back side

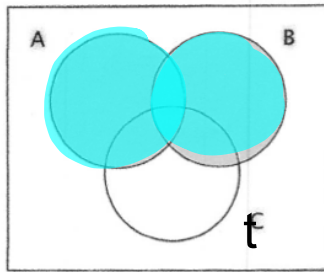
Interpreting

multiple possible answers

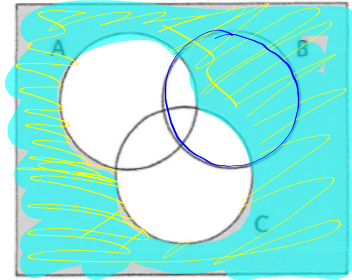
In the following diagrams, define the set that has been shaded



$A \cap B \cap C$



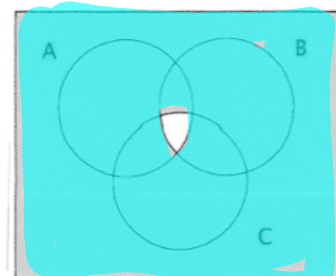
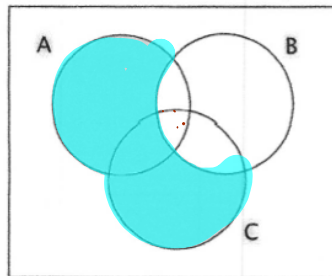
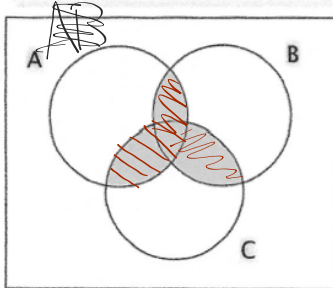
$(A \cup B) \cap C'$



$(A \cap B) \cup (A \cap C) \cup (B \cap C)$

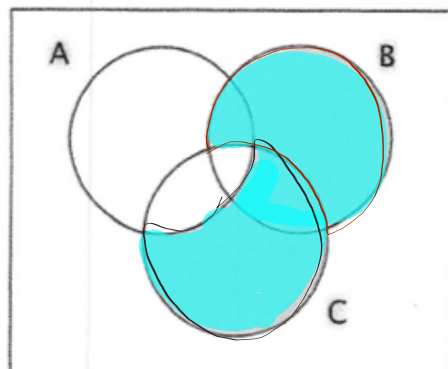
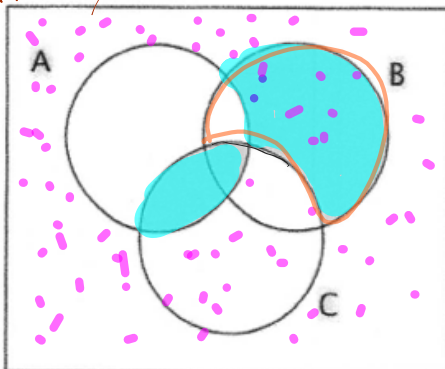
$(A \cup C) \cap B'$

$((A \cap B) \cap C)'$

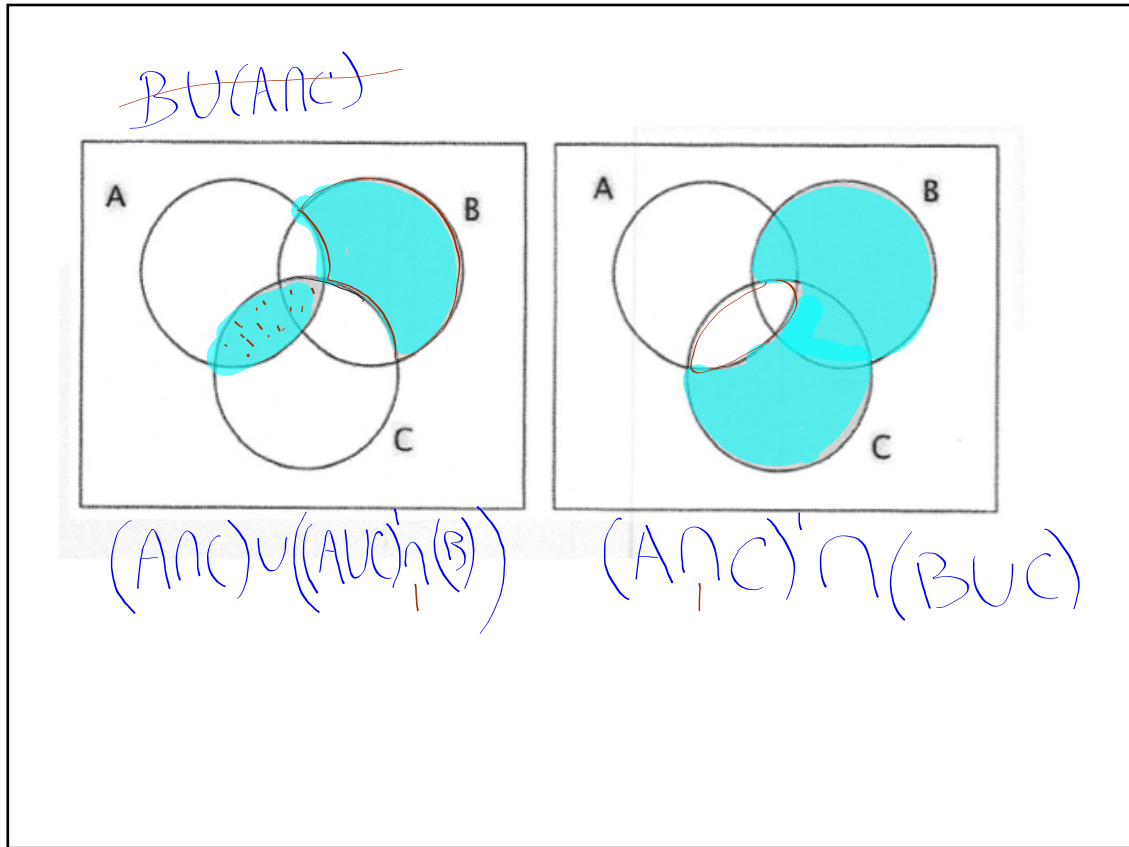


$(A \cap C) \cup (A \cup B) \cap B$

$(C \cap A') \cup (B \cap C)$
UNI



$(A \cap C) \cup ((B \cap C) \cap A')$



B.B

Set/Venn Assignment #3 is a handout

You have the rest of the period to work on this. Due tomorrow.

Keep making progress on your project. Use this time to ask me questions or run ideas by me.