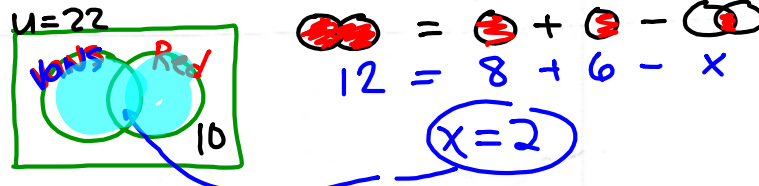bank

robbery

!@?*)*
ATM fees
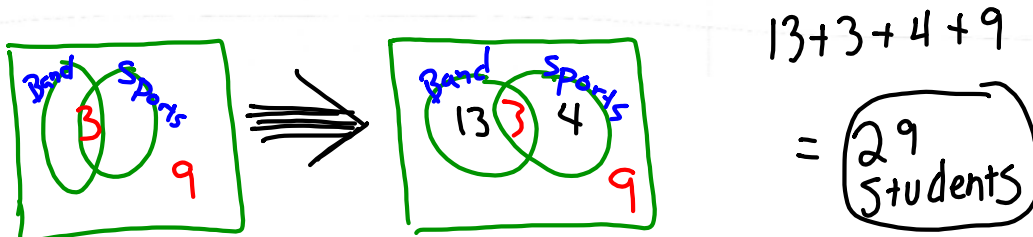
Pick up and Start the Warm Up

The dastardly price of convenience.
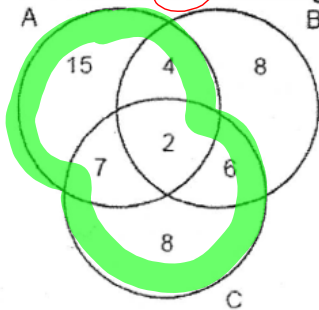
Posted on April 6, 2012 by Jessica Hagy

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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?

$u = 22$

Vans   Red

10

$$12 = 8 + 6 - x$$

$$x = 2$$

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?

Band   Sports

3

9

⟹

Band   Sports

13 3 4

9

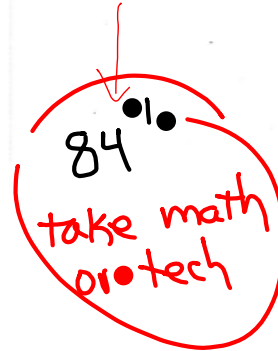$$13 + 3 + 4 + 9$$

$$= 29 \text{ students}$$

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?
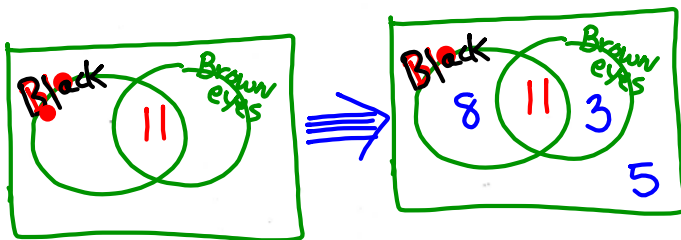

math or tech $15 + 4 + 7 + 2 + 8 + 6 = 42$

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

84
take math or tech

---

4   A tennis team has 27 members, 19 have black hair, 14 have brown eyes and 11 have both black and brown ~~eyes~~ hair.

   a) Create a Venn Diagram with this information.

Black   Brown eyes   11

⟹

Black   Brown eyes   8   11   3   5

   b) Find the number of members with:

     black hair or brown eyes $8 + 11 + 3 = 22$

     black hair, but not brown eyes. $= 8$

May 2016 Subject Reports
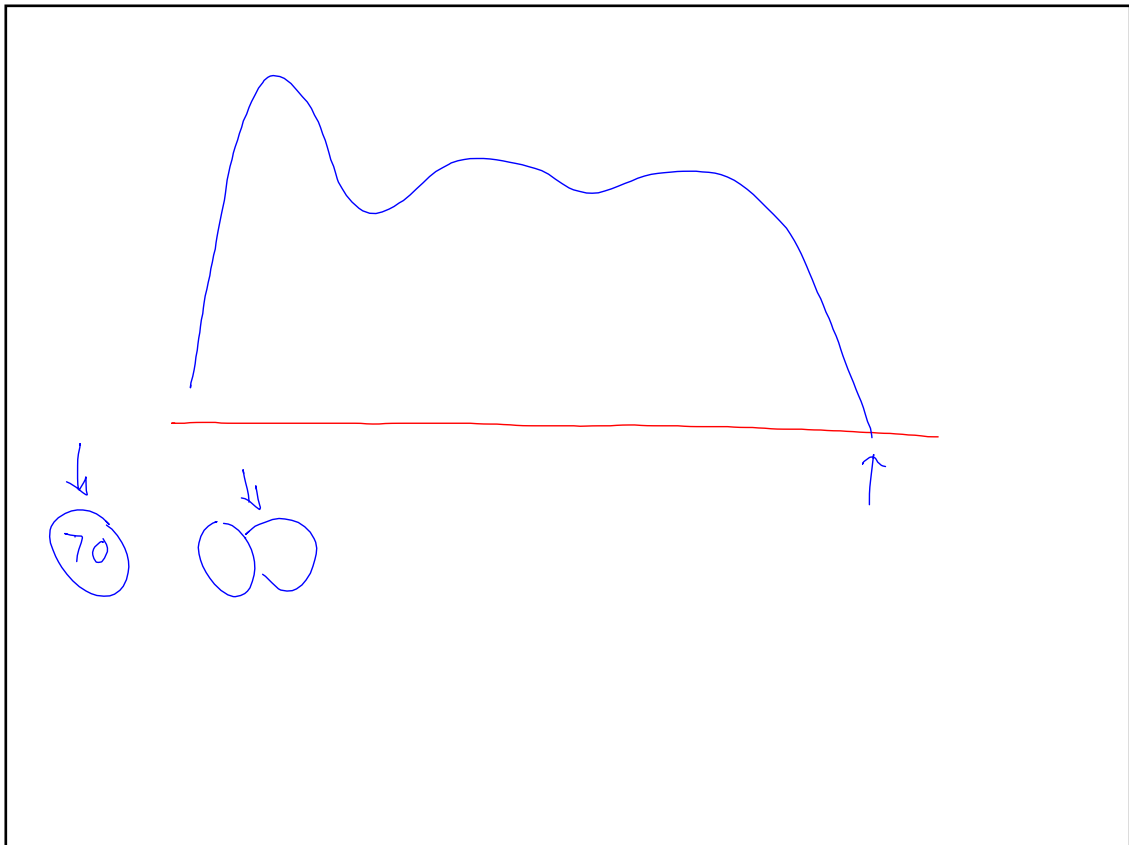
Worldwide Comments

There appeared to be a decline in the standard of work seen this session with a disturbing number of incomplete projects. Candidates opted almost unanimously for a statistical analysis.

There is a bit of a paradox when candidates have for their title "Is there a correlation between….". Surely anything other than correlation is irrelevant. Putting "Relationship" in the title instead would allow for more flexibility.

It was pleasing to see that many candidates were aware that they needed two simple and one further process. However, when an error was made in one of the simple processes then candidates lost marks which was a shame given their overall standard. Including a third simple and relevant process can be a safeguard for achieving a higher level in this criterion. It would be nice for teachers to steer their candidates away from the obvious into a meatier investigation. Most of the samples from the schools had the full range of marks.

On Criteria D (Interpretations)
Nearly all the candidates drew at least one conclusion from their results. However, some inconsistencies marred a few of the interpretations. Some candidates did not score highly in this criterion because the projects were too simple in conception to allow for substantive discussion. The stronger candidates had quite detailed discussion of their results.

Sample Projects with

Scores are now Posted

Project Handouts

P1_IB Project Info

P2_Collecting Information

P3_Choosing A Project_Writing the Introduction for Draft 1

P4_Revise, Collect & Describe Data for Draft 2

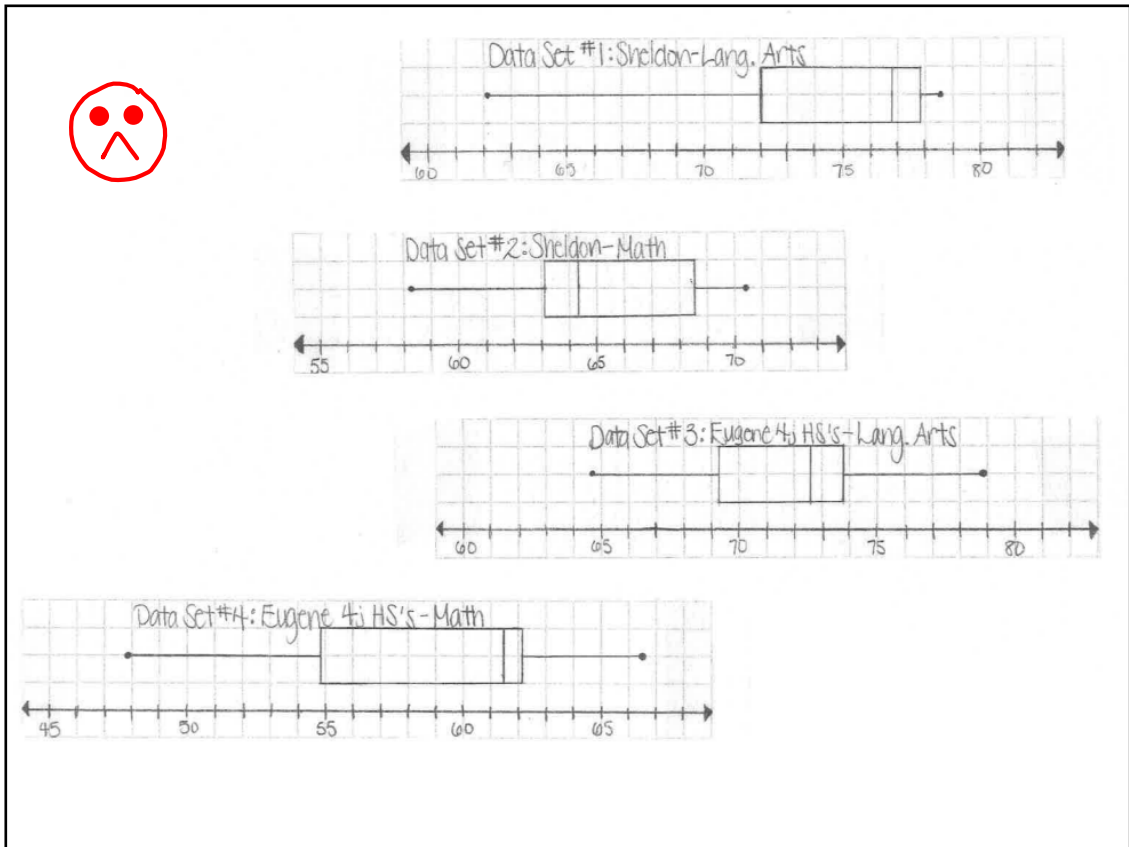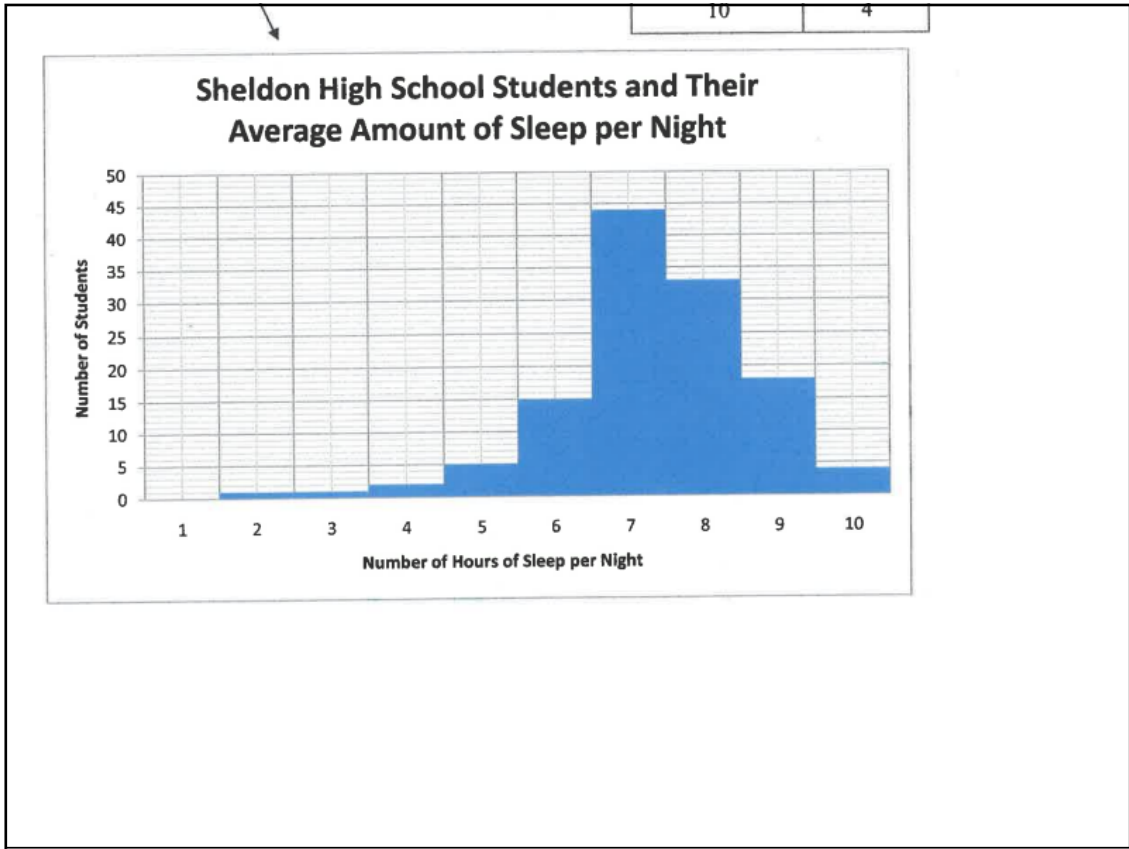P5_Final Draft Requirements

IB Project Writing Guide

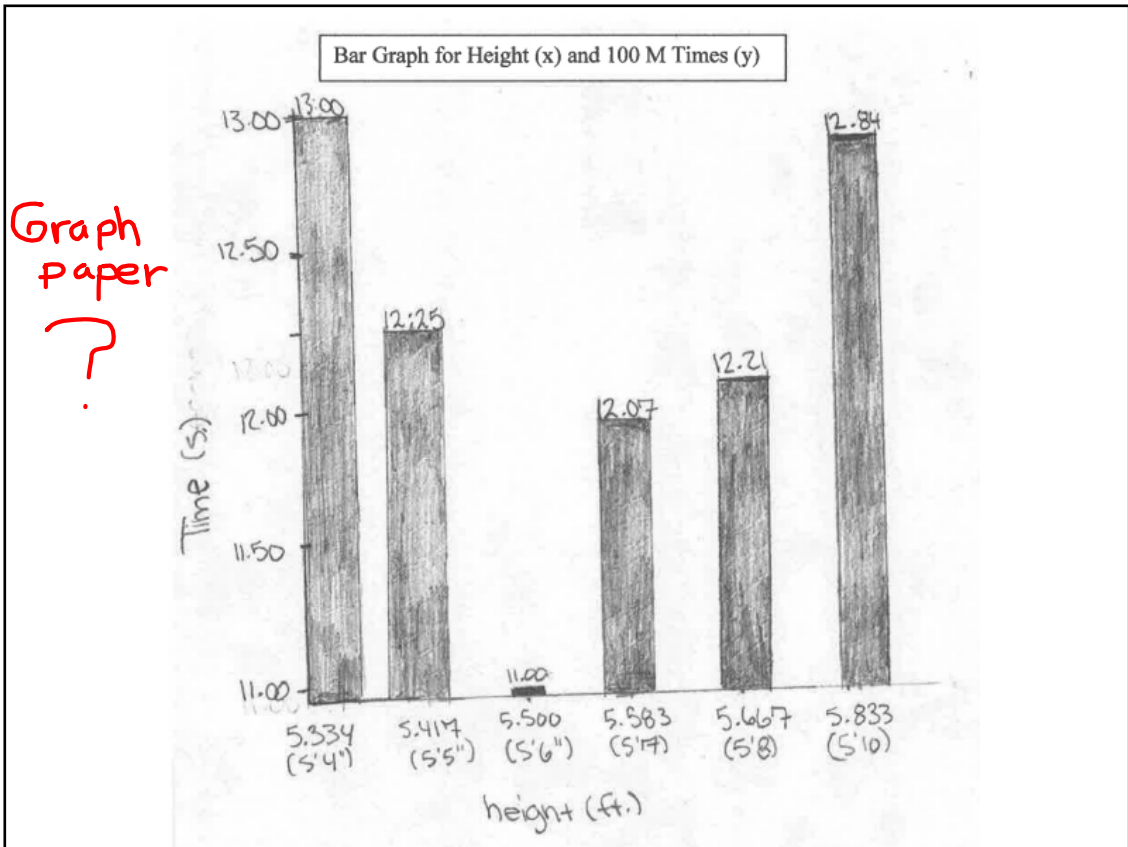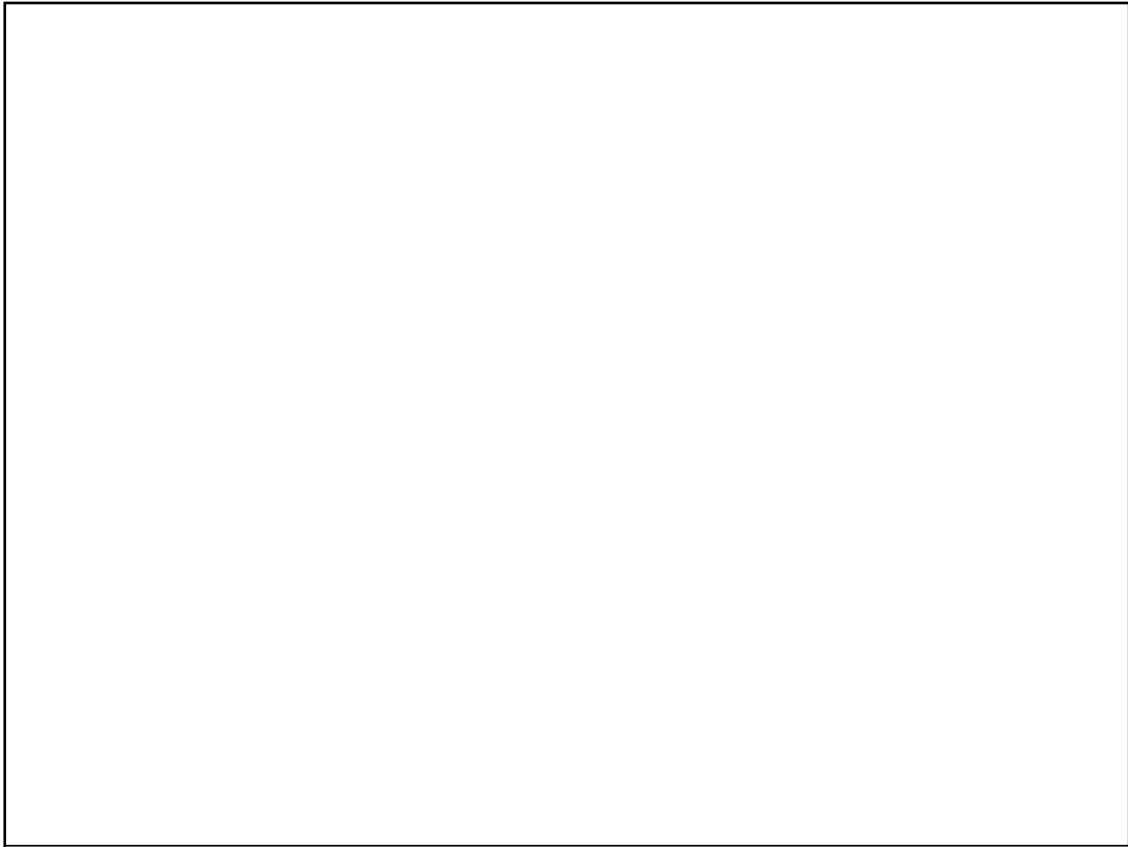official-project-scoring-guide_ib-math-studies

Sample Projects with Scores

sample-project-1-punches

sample-project-2-leadership
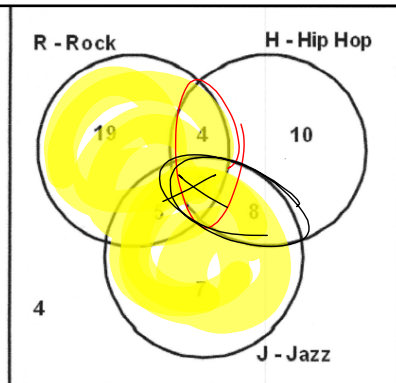
sample-project-3-crime

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

Number of Students

| 50 | 45 | 40 | 35 | 30 | 25 | 20 | 15 | 10 | 5 | 0 |

Number of Hours of Sleep per Night
1 2 3 4 5 6 7 8 9 10

| 10 | 4 |

Data Set #1: Sheldon-Lang. Arts

60   65   70   75   80

Data Set #2: Sheldon-Math

55   60   65   70

Data Set #3: Eugene 4; HS's-Lang. Arts

60   65   70   75   80

Data Set #4: Eugene 4; HS's-Math

45   50   55   60   65

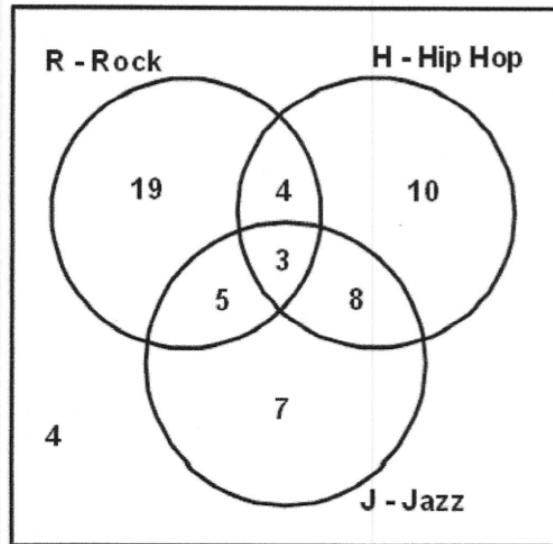Bar Graph for Height (x) and 100 M Times (y)

Graph
paper
?
.

Today's
Aim :

- Analyze Venn Diagrams

- Use Venn Diagrams to solve problems.

————

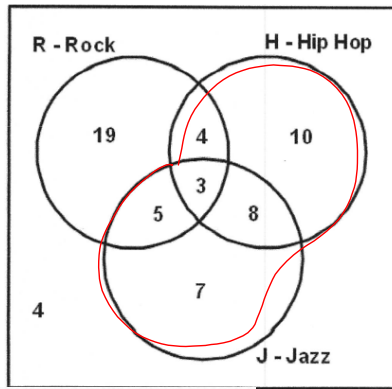· Continue to practice using Venn Diagrams and Sets .

Pick up
the blue handout

Interpreting Venn Diagrams

Answer the following questions about the Venn diagram below that shows a group of students' preferences for different music genre.

R - Rock   H - Hip Hop

19   4   10

3

5   8

7

4

J - Jazz

www.inthinking.co

R - Rock   H - Hip Hop

19   4   10

8

4

J - Jazz

a) How many students said they liked Rock Music?   **31**

b) How many students like Rock and Hip Hop?   **7**

c) How many students said they liked Hip Hop and Jazz but not Rock?   **8**
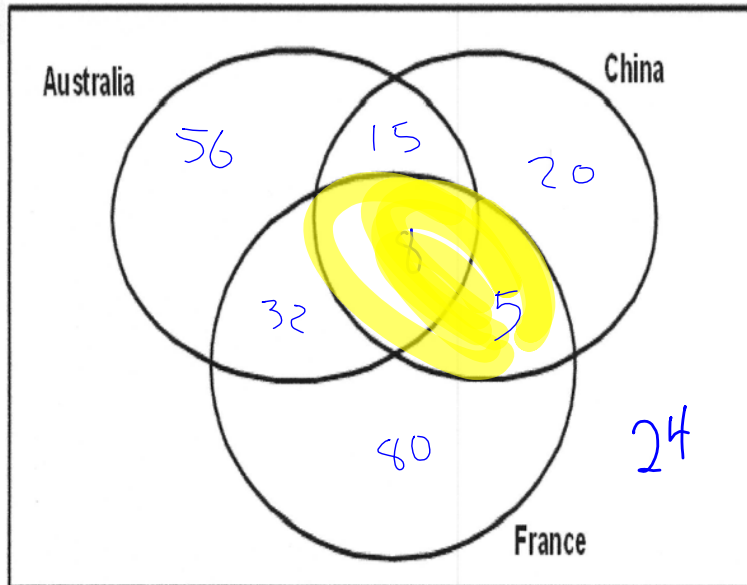
d) What is $n(R \cup J) =$ **46**

R - Rock   H - Hip Hop

19   4   10

3

5   8

7

4

J - Jazz

e) What is $n(R \cap J \cap H) =$ **3**
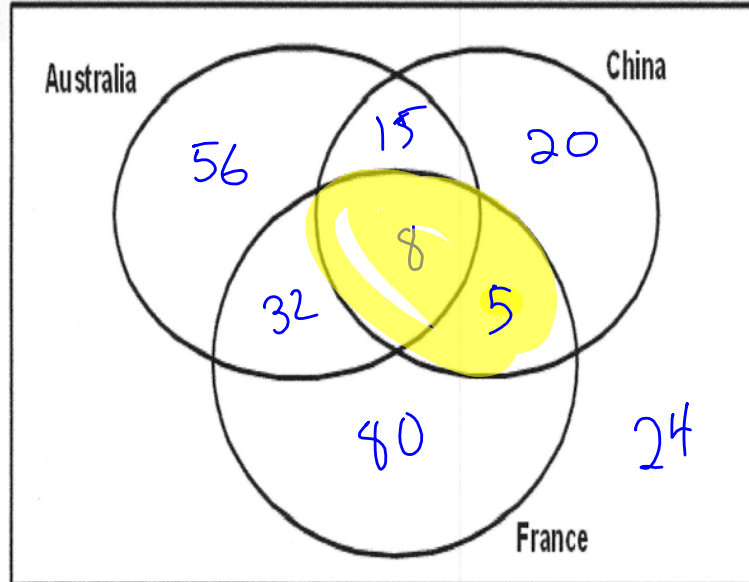
f) What is $n(H \cup J)' =$ **19+4= 23**

g) How many students are there in total?   **60**

A group of students were asked if they had ever visited France, China and Australia
2 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

Australia   China

56   15   20
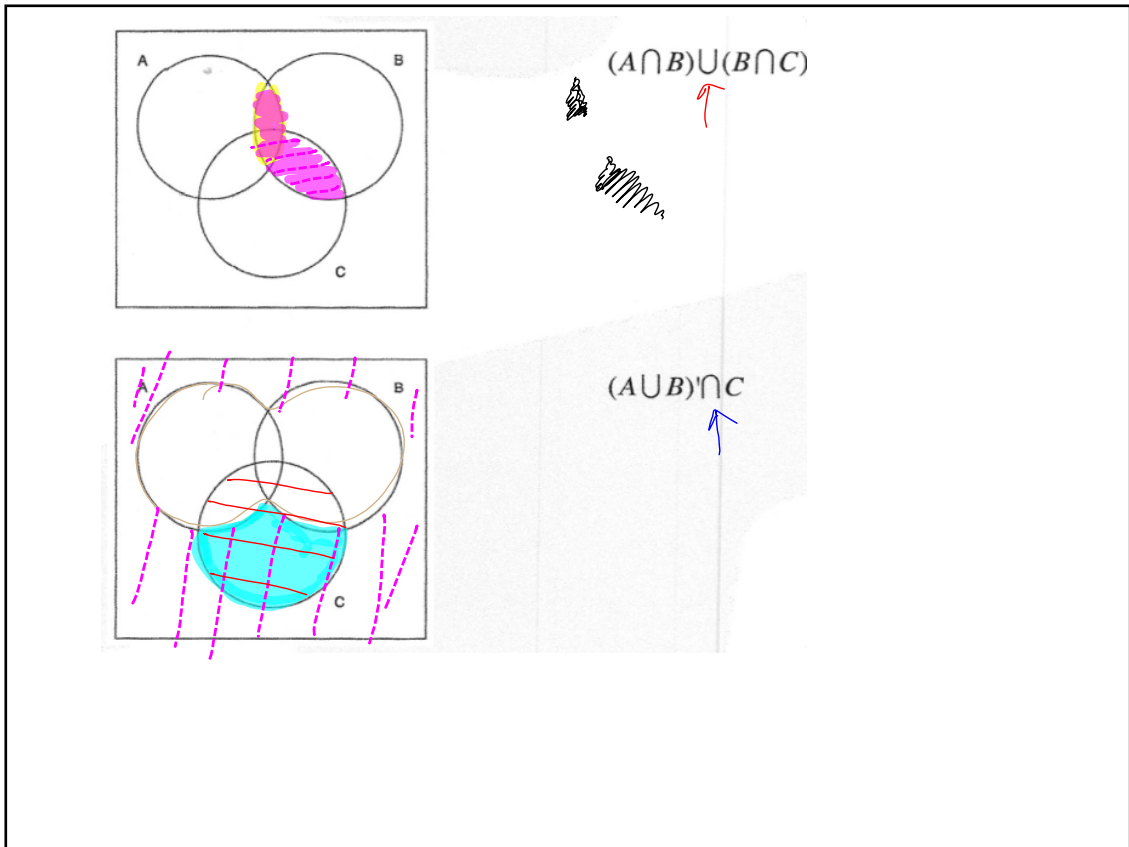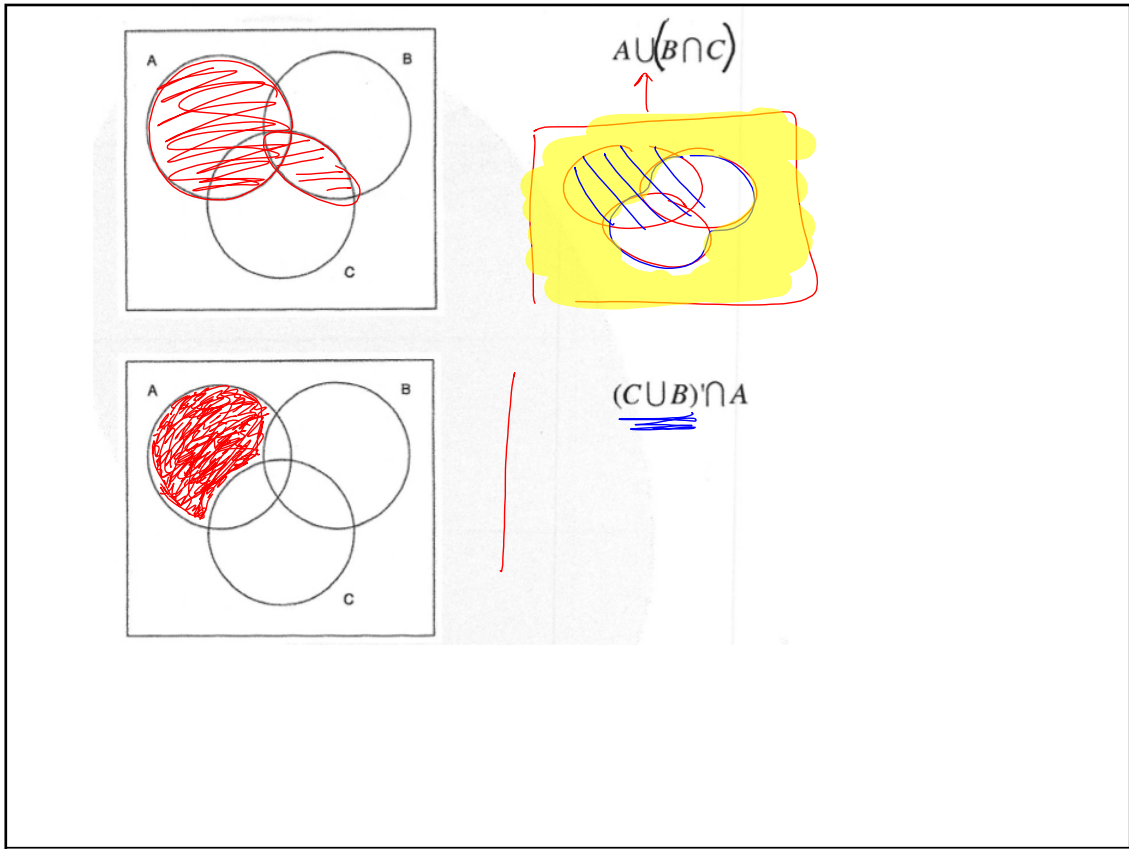
32   5

40   24

France

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

Australia   China

56   15   20

32   8   5

40   24

France

Shading

3 set Venn Diagrams

will work on for bit.

$A \cup (B \cap C)$

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

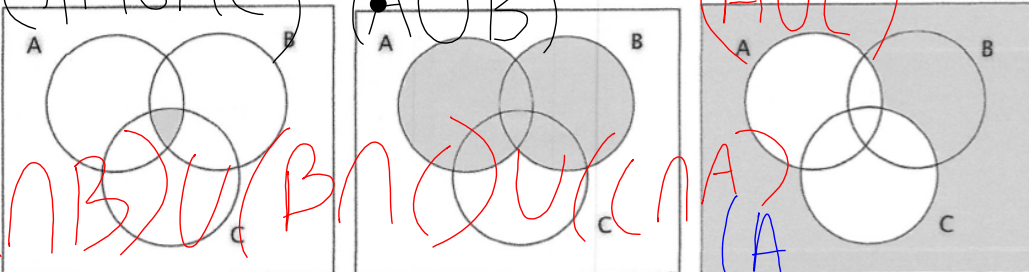$(A \cap B) \cup (B \cap C)$

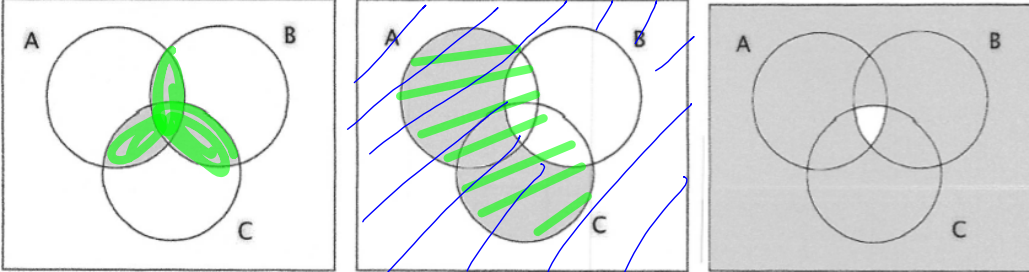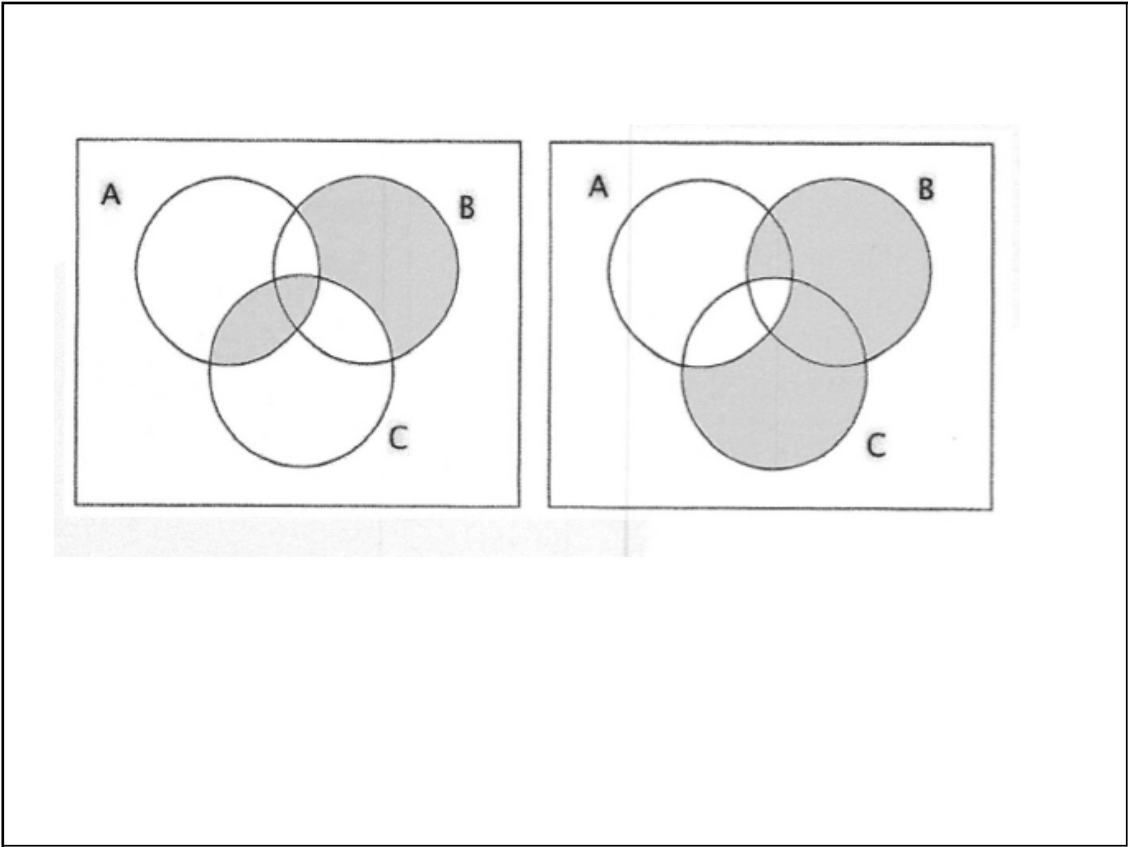$(A \cup B)' \cap C$

back side

Interpreting

multiple possible answers

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

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

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

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

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.