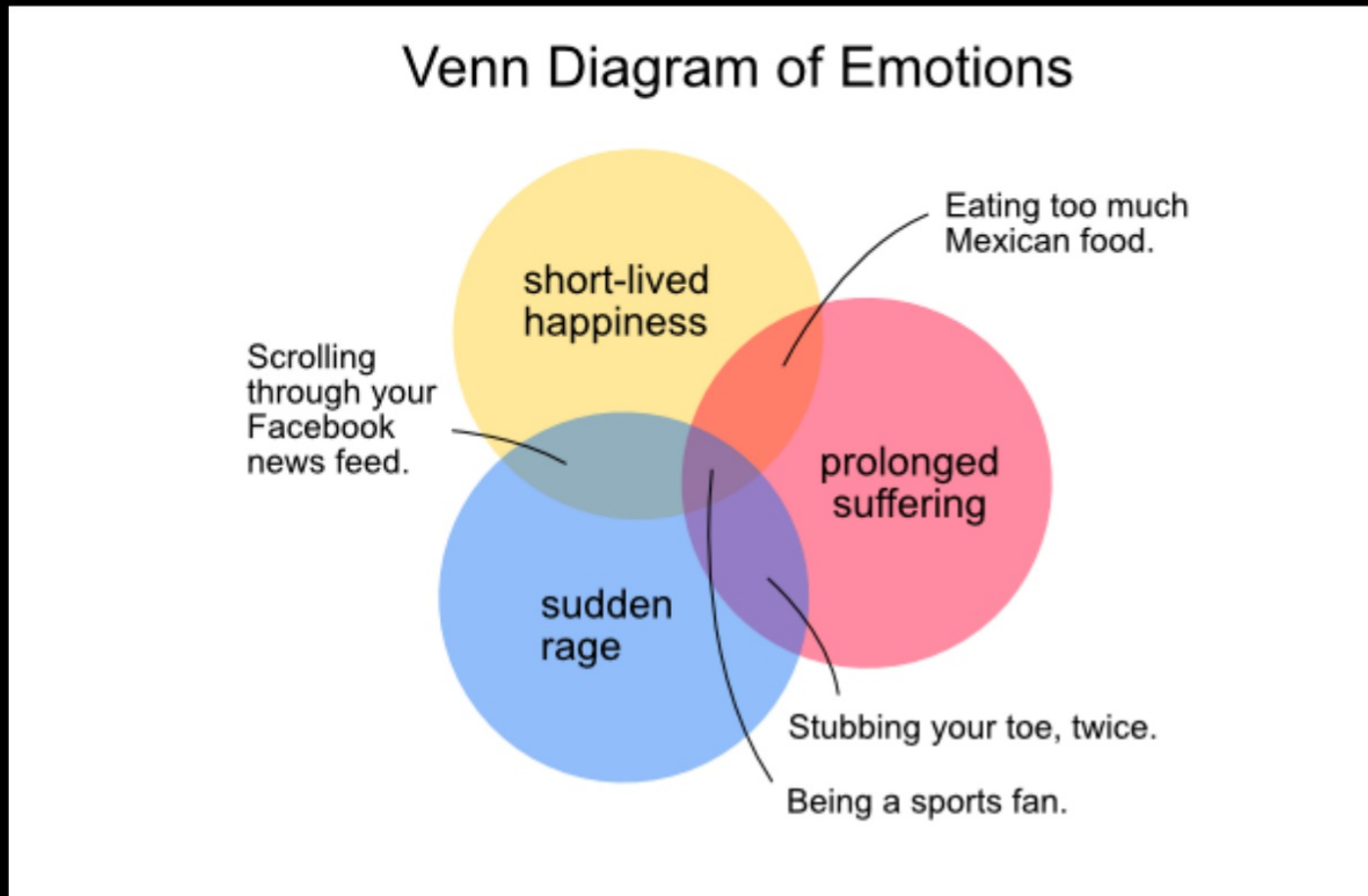
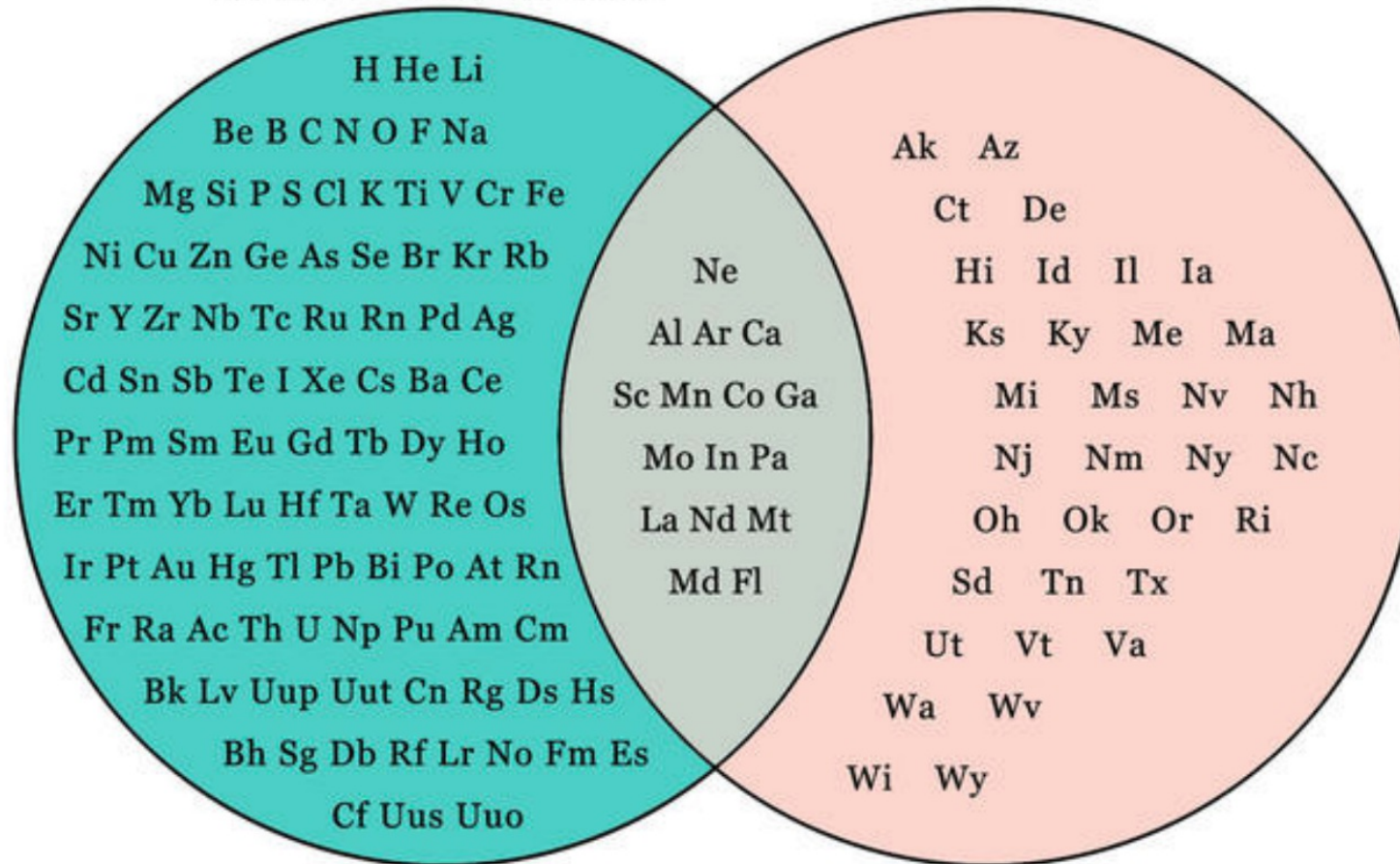


Please sketch a Venn diagram for a scenario in your life. Here's one example:

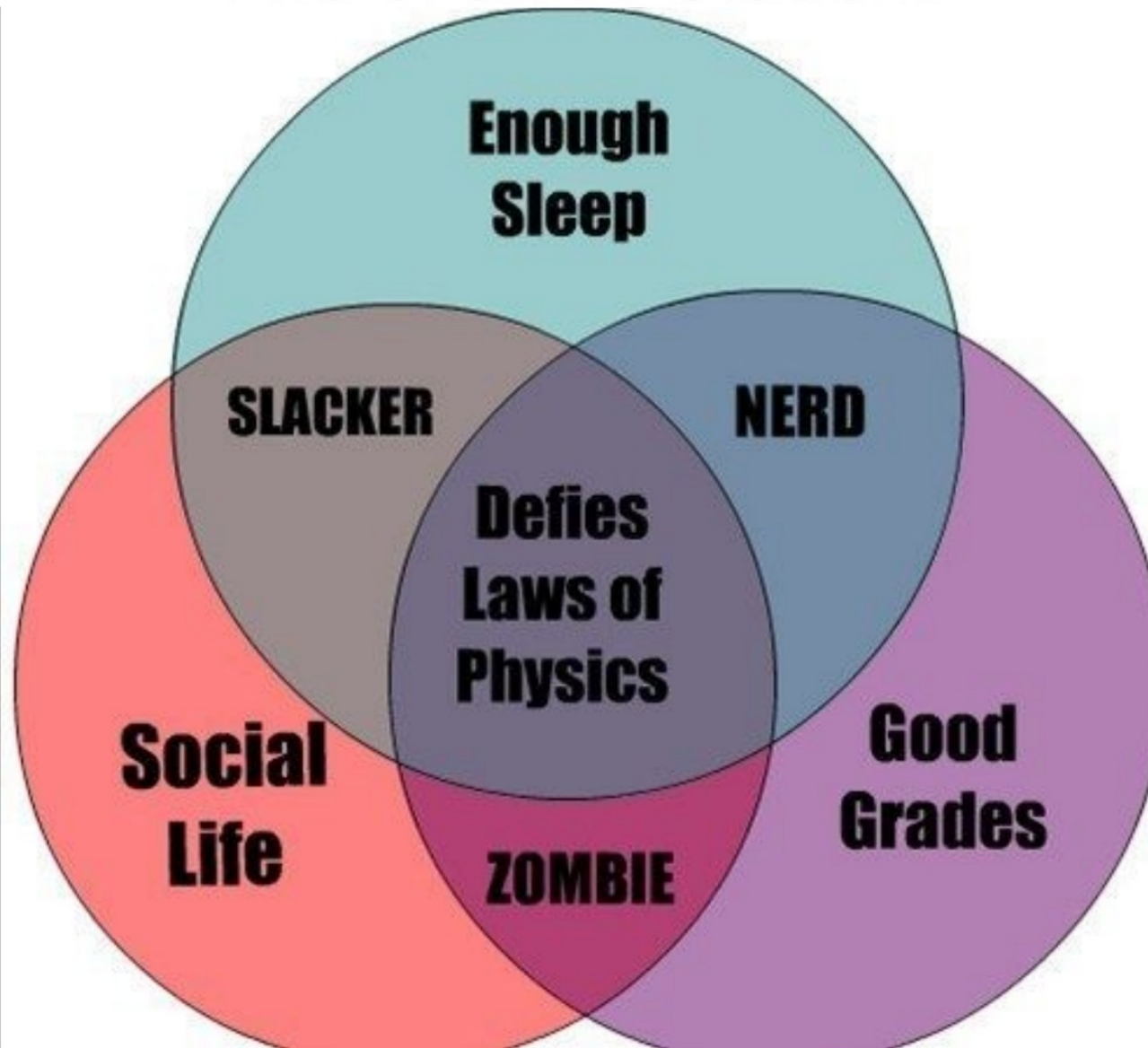


chemical elements

us states



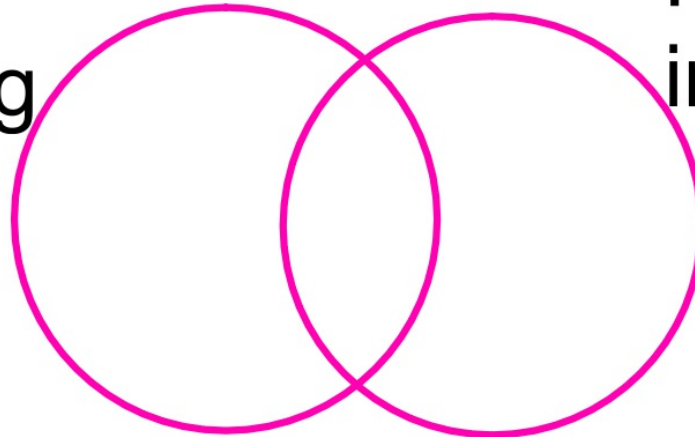
Life of an IB Student



Now for some construction:

Create two overlapping circles only utilizing the desks and chairs in this room. It should look like a Venn Diagram when you are finished.

Enjoy
Cooking



Play a musical
instrument

Neither applies

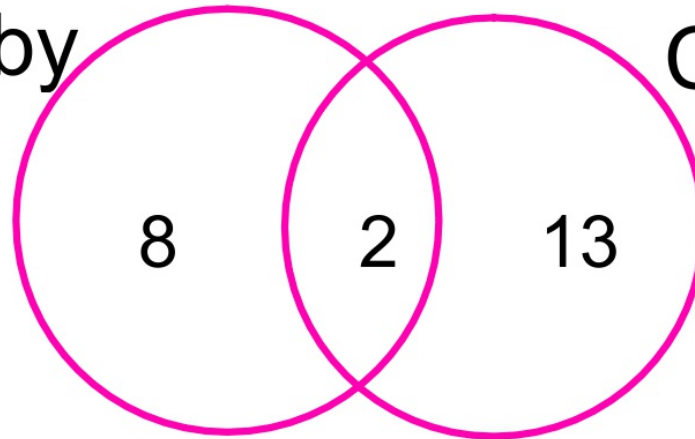
Today's learning objective:

By the end of class, I will be able to diagnose probability problems with Venn Diagrams.

Today's language objective:

I will utilize the terms "combined, inclusive, and exclusive" when discussing Venn Diagrams with a neighbor.

Rugby



Cricket

5

Neither applies

How many people play rugby? 10

How many people only play rugby? 8

How many people play both rugby and cricket? 2

How many people only play cricket? 13

How many people play neither sport? 5

How many people are there in total? 28

The 50 graduating students at Middleton High School can take up to three mathematics classes in their final year chosen from Calculus, Statistics and Algebra. The following breakdown occurs:

7 take all three

12 take Algebra and Calculus

15 take Statistics and Calculus

9 take Statistics and Algebra

21 take Algebra

30 take Calculus

19 take Statistics

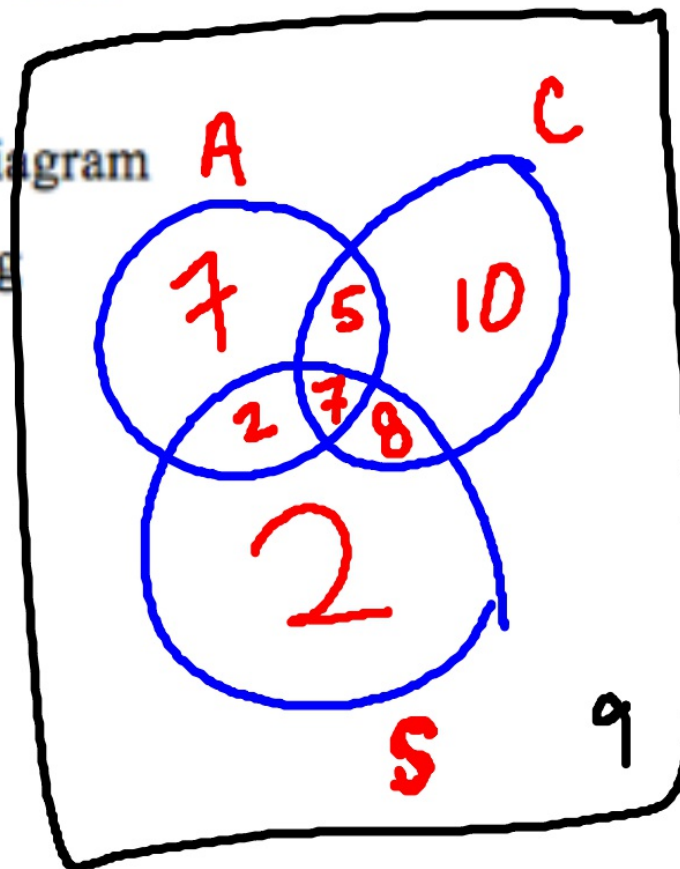
(a) Represent this information on a Venn diagram

(b) Determine the number of students taking

(i) Calculus only

(ii) Statistics but not Calculus

(iii) no Mathematics class.



The DP after school clubs at Meridian are reorganized so that the students and faculty can focus on quality. After the reorganization, only 3 clubs remain, and students can choose to be in multiple clubs or no clubs.

Meridian has 210 total DP students, and the numbers for the clubs are below:

62 students participate in Model UN

48 students participate in Drama

22 students participate in StuCo

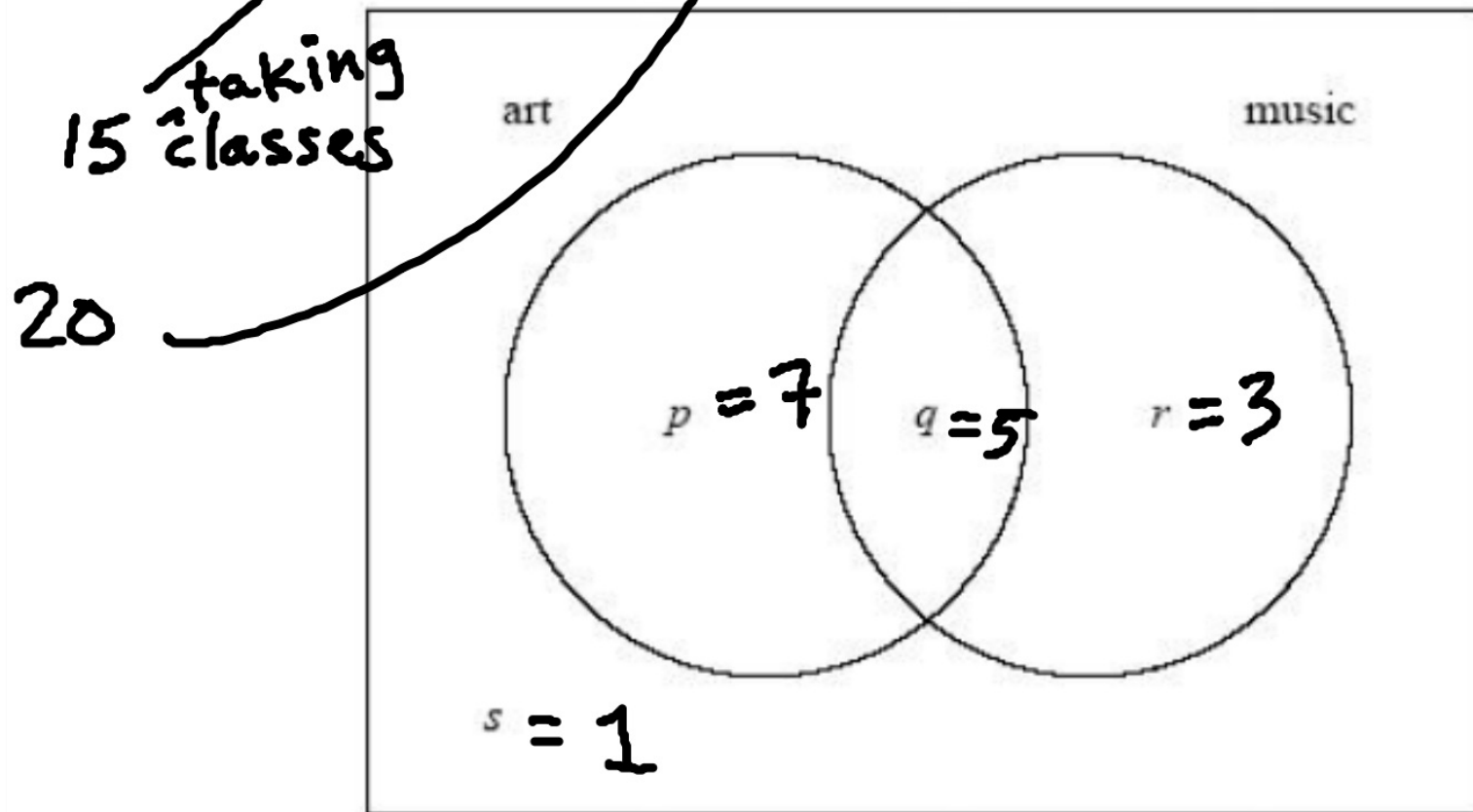
6 students participate in all three

20 participate in Drama and Model UN

12 students participate in Model UN and StuCo

8 students participate in Drama and StuCo

.) In a group of 16 students, 12 take art and 8 take music. One student takes neither art nor music. Venn diagram below shows the events art and music. The values p , q , r and s represent numbers of students



- (a) (i) Write down the value of s . **1**
- (ii) Find the value of q .
- (iii) Write down the value of p and of r .