

MODULE 11.2 - VENN DIAGRAMS AND CARDINALITY**LEARNING OBJECTIVES**

In this section, you will:

- Visualizing the union and intersection of sets using Venn Diagrams
- Cardinality of a set and the properties
- Finding cardinality using a Venn diagram

VENN DIAGRAMS

- State the definition of a Venn diagram.

CARDINALITY

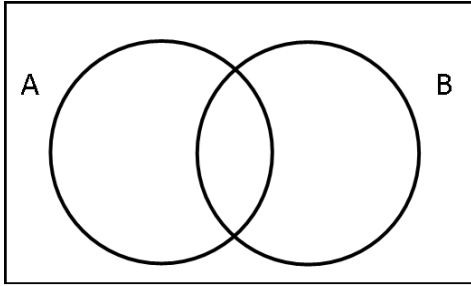
- State the definition of the cardinality of a set.

- State the cardinality properties.

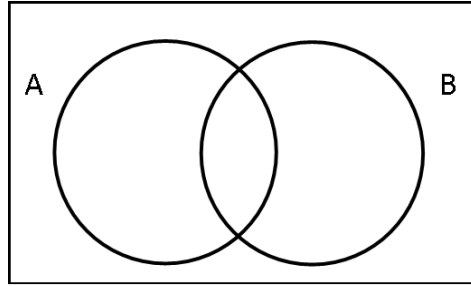
MODULE 11.2 - CLASS NOTES

For the following exercises, create a Venn diagram to illustrate the indicated interaction of sets.

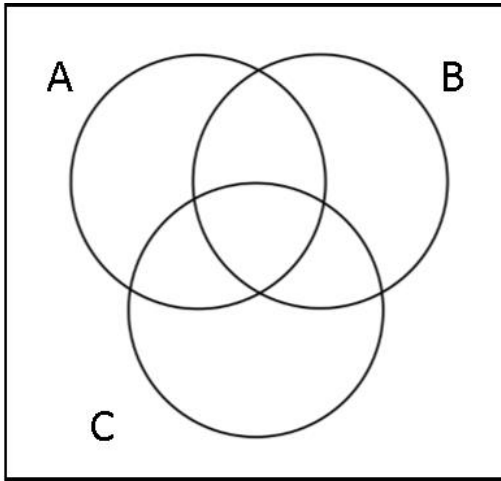
1. $A \cup B^c$



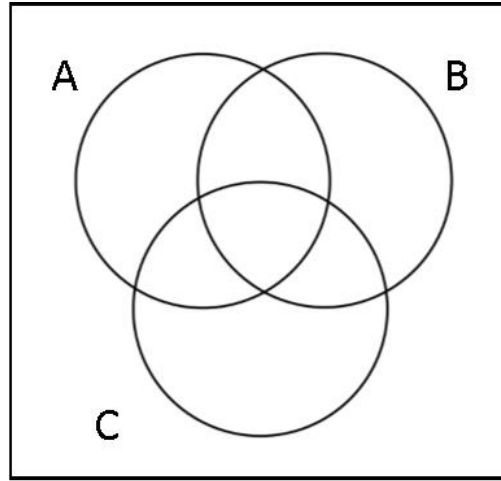
2. $A^c \cup B^c$



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



4. $A \cup (B^c \cap C)$



Fifty students were surveyed, and asked if they were taking a social science (SS), humanities (HM), or a natural science (NS) course the next quarter.

21 were taking a SS course 26 were taking a HM course 19 were taking a NS course 9 were taking a SS and HM
 7 were taking a SS and NS 10 were taking HM and NS 3 were taking all three 7 were taking none

5. How many students are only taking a HM course?

6. How many students are taking a SS or a NS course?

