Provincial Department of Education – Sabaragamuwa – Week School

Week: - 22

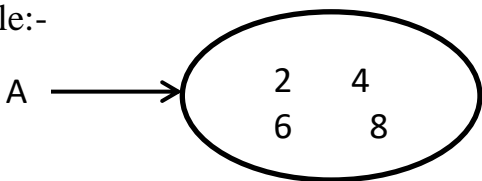**Subject: Mathematics**

Translated by: WA.A.Priyadarshia
Kg/Dehi Walagamba M.V.

Grade -10

Grade 10- Lessons No-18
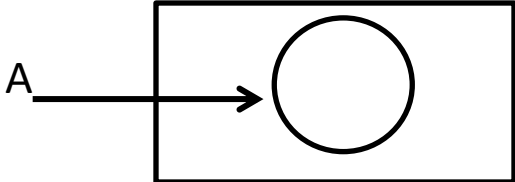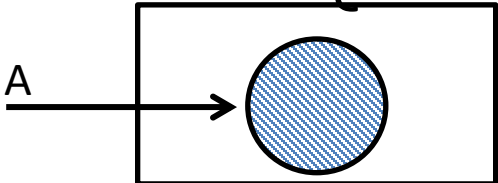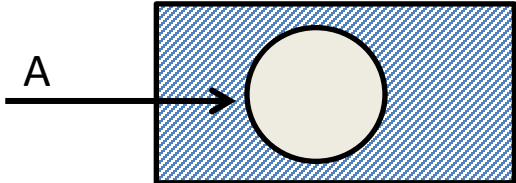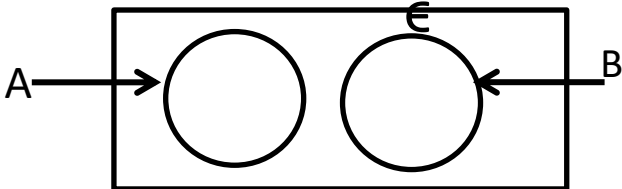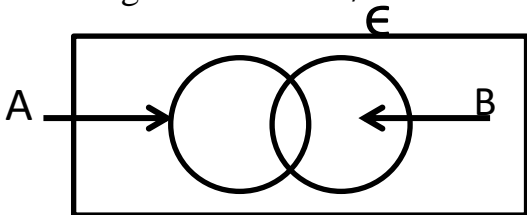
Sets

The Methods of Describing Sets:-

|	

1.The descriptive method
    Example
  $A = \{Even\ numbers\ between\ 1 and\ 10\}$
	2.The Method of listing Elements
	
	Example:- $A = \{2,4,6,8\}$

3.The Venn Diagram method Example:- A ⟶ (2 4 6 8)	4. Set Builder form Example:- $A = \{X: X\ is\ a\ Even\ Number. 1 < x < 10\}$

Let's solve the problems in **Exercise 18.1 on pages 177 and 178** of the Mathematics textbook

Regions in a Venn Diagram

1. The universal set $\in$	2. When there is one subset represented in the universal set $\in$ A
A $\in$	A $\in$
3. When two subsets are represented in the Venn Diagram $A \cap B = \emptyset$ $\in$ A → ← B	3. When two subsets are represented in the Venn Diagram $A \cap B \neq \emptyset$ $\in$ A → ← B

Let's solve the problems in **Exercise 18.2 on the page 181** of the Mathematics textbook

Relationship between the numbers of elements in two sets

$\in$

A   B

$$n(A \cup B) = n(A) + n(B) - n(A \cap B)$$
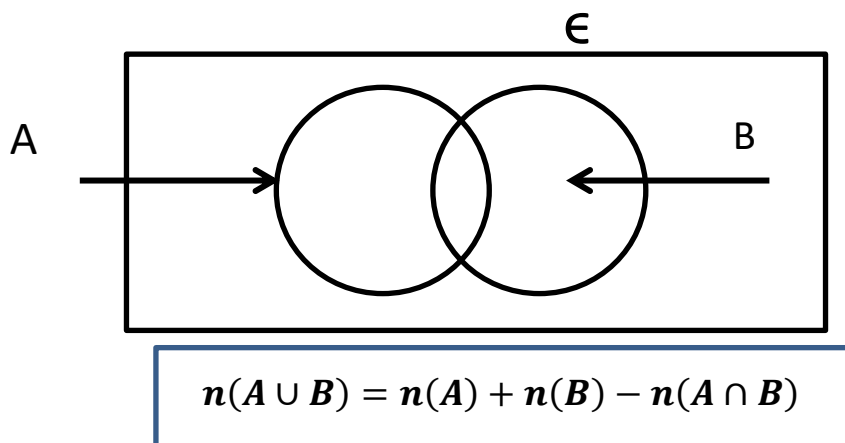
When A and B Are disjoint, $n(A \cap B) = \emptyset$

In this case, $\boxed{n(A \cup B) = n(A) + n(B)}$

Let's solve the problems in **Exercise 18.3 on the pages 184 and 185** of the Mathematics textbook.