


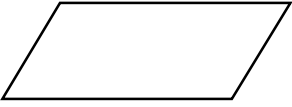
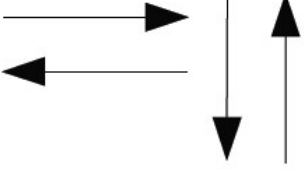
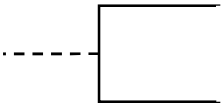
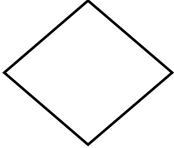
# Flow Charts

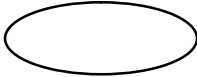

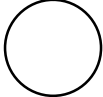
## Contents of Lecture:

- ❖ Flow Chart
- ❖ Examples
- ❖ Homework number (2) delivered next week

## Flow Chart

- ❖ A **flowchart** is a design tool used to graphically represent the logic in a solution.
- ❖ Flowcharts typically do not display programming language commands. Rather, they state the concept in English or mathematical notation.
- ❖ Here are some guidelines for commonly used symbols in creating flowcharts. You can use any symbols in creating your flowcharts, as long as you are consistent in using them.

Symbol	Name	Meaning
	Process Symbol	Represents the process of executing a defined operation or groups of operations that results in a change in value, form, or location of information. Also functions as the default symbol when no other symbol is available.
	Input/output (I/O) Symbol	Represents an I/O function, which makes data available for processing (input) or displaying (output) of processed information.
	Flow line Symbol	Represents the sequence of available information and executable operations. The lines connect other symbols, and the arrowheads are mandatory only for right-to-left and bottom-to top flow.
	Annotation Symbol	Represents the addition of descriptive information, comments, or explanatory notes as clarification. The vertical line and the broken line may be placed on the left, as shown, or on the right.
	Decision Symbol	Represents a decision that determines which of a number of alternative paths is to be followed.

	Terminal Symbol	Represents the beginning, end, or a point of interruption or delay in a program.
	Predefined Process Symbol	Represents a named process consisting of one or more operations or program steps that are specified elsewhere.
	Connector Symbol	Represents any entry from, or exit to, another part of the flowchart. Also serves as an off-page connector.

### Examples

1. Convert the following Pseudo code to finds the Summation of two numbers

1. Begin
2. **Prompt** user to enter number\_one
3. **Read** number\_one
4. **Prompt** user to enter number\_two
5. **Read** number\_two
6.  $sum \leftarrow number\_one + number\_two$
7. **Display** sum
8. End

2. Write Pseudo code and draw the equivalent Flowchart to compute the sum, average and product of three numbers

**Homework number (2) delivered next week:**

Convert the following pseudo codes to equivalent flow charts:

1) Pseudo code to Calculates the Circle area

1. Begin
2. **Initialize**  $PI$  to 3.14
3. **Prompt** user to enter radius
4. **Read** radius
5.  $area \leftarrow PI * radius * radius$
6. **Write** area
7. End

2) Pseudo code to Calculates the Rectangle area

1. Begin
2. **Prompt** user to enter Length
3. **Get** Length
4. **Prompt** user to enter Width
5. **Get** Width
6. **Multiply** Length by Width to **Compute** Area
9. **Print** Area
10. End