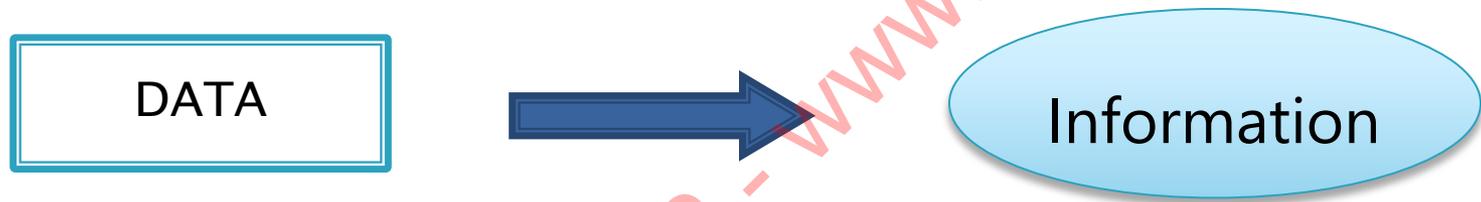


# Data and Information

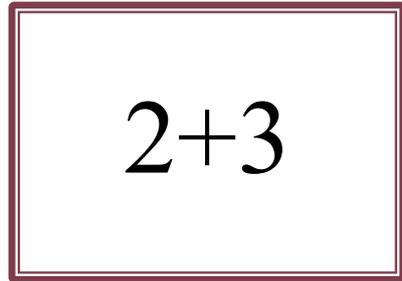
Prepared by :-  
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ISA (ICT) – PICTEC  
Anuradhapura

- ▶ Data and Information are two different concepts.



- ▶ Data are raw facts.
- ▶ By processing data, Information is obtained.

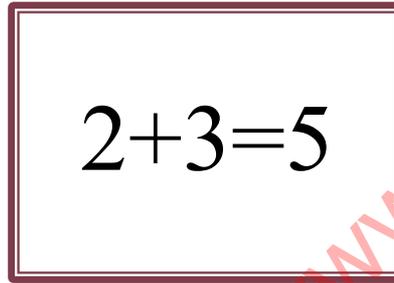
Data



Input



Process



Processing



Information



Output

- ▶ Input - Feeding data into the computer.
- ▶ process - The mechanism of converting data into the meaningful information.
- ▶ Output - The actual result of the process.

# What is DATA?

- ▶ Data means raw facts entered in to a computer for processing.
- ▶ Data are the basic facts about things, persons, places, business activities and events that exist in unprocessed form.

- Images, words, numbers, symbols or sounds which do not convey a meaning when standing alone are called Data.

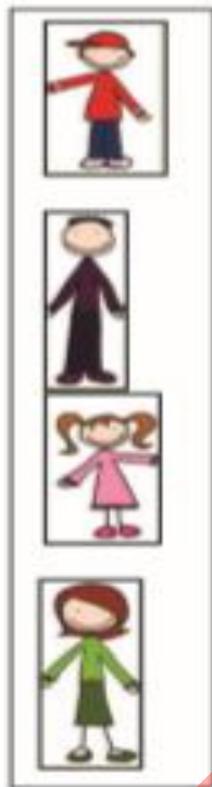


Figure 1.1 - Human figures

When we take each image separately, it does not convey a meaning. But when properly arranged as on the right hand side, one can understand these are the members of one family.



Figure 1.2 - Family

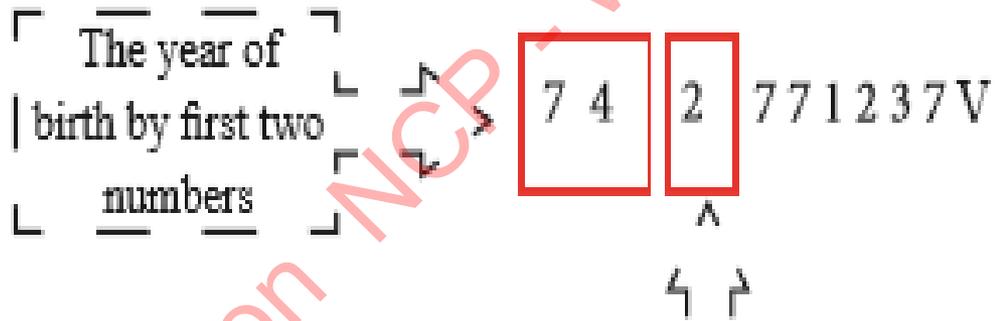
# What is Information?

- ▶ Information is organized or classified data which has meaningful values.
- ▶ The term Information is refers to the result obtained by processing data in a meaningful way.
  - Information is used to make decisions.

- The suitable modification applied to Data according to the instruction provides to get a meaningful Information.

Take a look at the numbers in a National Identity Card. At once it looks as if it is just a number. But when you analyze it you can obtain some meaningful information.

**Example 3**



Number 0-4 denotes that the person is a male  
Number 5-9 denotes that the person is a female

# Data

# Information

Raw materials.

Processed Data.

No meaning.

Meaningful.

Unprocessed.

formatted.

Disorganized.

Organized.

Inputs.

Output.

Education NCP - [www.edncp.in](http://www.edncp.in)

# Characteristics of Quality Information

Quality of information	Example
a) Relevancy 	It is not needed to submit all the academic information from Grade 1 onwards, when the requirement is to submit only the highest educational qualification.
b) Completeness 	Taking information from only a small group of people in order to arrive at the PCI (Per Capita Income) of a country is not sufficient. Incomplete information could lead to drawing wrong conclusions.
c) Accuracy 	If a doctor gets wrong information about the patient's health, it could be harmful to the patient.
d) Timeliness 	The information must always be updated. Today's weather report may not be suitable to decide on tomorrow's weather.
e) Cost Effectiveness 	If an organization spends money more than the profits to collect some information in order to increase profits, it would be a business loss to the organization.

# Evaluation

Past Papers  
Questions & Answers  
from  
2007 -2019

Education NCE - [www.ednep.lk](http://www.ednep.lk)

# G.C.E.(O/L) 2007 – Paper 1

1. Which of the following is considered as raw data?
  1. Marks obtained by a student in a class,
  2. Sorted list of marks obtained by students in a class
  3. Maximum marks obtained by students in a class
  4. Average marks obtained by students in a class.

# G.C.E.(O/L) 2008 – Paper 1

1. Which one of the following does not contain information?
  1. A weather report.
  2. A time table
  3. A prize list displayed in a super market
  4. An unlabeled chart.

# G.C.E.(O/L) 2009 – Paper 1

1. A doctor monitors the temperature of a patient having fever over five hour period by

- A. Lying the hand on the patient's forehead at an hourly interval.
- B. Asking the patient about the fever condition at an hourly interval.
- C. Drawing a graph using the reading obtained by a thermometer at an hourly interval

Which of the above gives the doctor, information about the patient's fever condition?

- 1. Only A
- 2. Only B
- 3. Only C
- 4. All A, B and C

# G.C.E.(O/L) 2011 – Paper 1

1. Which of the following can be classified as data in comparison with information?
  1. Average monthly temperature in the city of Anuradhapura
  2. A pie chart showing percentage of male and female students in a school.
  3. Last four digits of a residential telephone number.
  4. Maximum mark obtained for mathematics by Grade 10 students

# G.C.E.(O/L) 2019 – Paper 1

- ▶ 5. Which of the following is an example for data processing?
  - 1) Calculating the account balance using banking software after a cash withdrawal.
  - 2) Copying a file from a USB drive to a hard disk of a computer
  - 3) Installing sound editing software in a personal computer.
  - 4) Scanning a letter using a scanner.

# Answers

- ▶ G.C.E.(O/L) 2007 – Paper 1
  - 1). Marks obtained by a student in a class,
- ▶ G.C.E.(O/L) 2008 – Paper 1
  - 4) An unlabeled chart
- ▶ G.C.E.(O/L) 2009 – Paper 1
  - 3). Only C
- ▶ G.C.E.(O/L) 2011 – Paper 1
  - ▶ 3). Last four digits of a residential telephone number.
- ▶ G.C.E.(O/L) 2019 – Paper 1
  - ▶ 1). Calculating the account balance using banking software after a cash withdrawal.