Sabaragamuwa Provincial Department of Education – Weekly School

Grade 10

Information & Communication Technology

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Competency 3 : Investigates the methods used to represent data in computer systems.
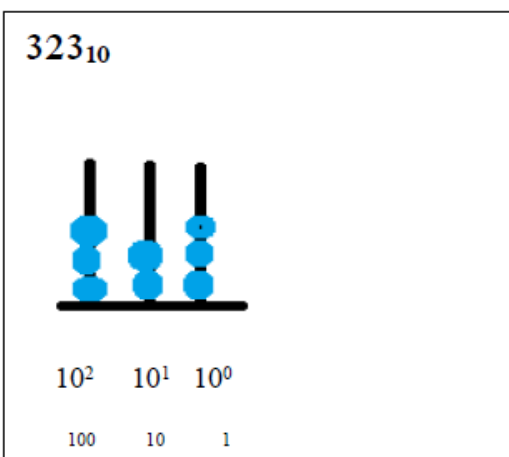
Competency Level 3.1: Uses the binary number system to represent data in computer systems.

1. Every number system is made up of units, numbers, and bases/Radix. Write down the base and the numbers used in the following number systems.

Number System	Base/ Radix	Numbers used
Binary		
Decimal		
Octal		
Hexadecimal		

2. Represent the following numbers in a counting frame according to the positional value (weight factor).

Example:

323_{10}

10^2 10^1 10^0

100   10   1

581_{10}

100110_2

723_8

$12A_{16}$

3. Specify which number system the following numbers belong to.

    1. 101-...

    2. 785-...

    3. 251 -..

    4. 111011 -...

    5. AD2-..