Sadiq Public School

Do the right, fear no man

Subject: Computer Science **Class: P7** **Saturday, 16 November, 2024**

Lesson: This lesson is about Number system (Chapter no#4 “Revision”)

Inquiry: In our previous lessons we learned about the Possible dangers of the internet. What are advantages of internet? What are the disadvantages of the Internet?

Information:

Computer store information using binary codes

Computers use binary code to process and store information since the physical states of a computer's transistors being on or off lend themselves to a two-symbol method of notation. A single binary digit is referred to as a bit and is represented by zero or one; eight bits make up a byte.

Binary explained:

The modern binary number system was studied in Europe in the 16th and 17th centuries by Thomas Harriot, Juan Caramelly Leibowitz, and Gottfried Leibniz. However, systems related to binary numbers have appeared earlier in multiple cultures including ancient Egypt, China, and India.

Binary Numbers:

A binary number is a number expressed in the base-2 numeral system or binary numeral system, a method for representing numbers that uses only two symbols for the natural numbers: typically "0" (zero) and "1" (one). A *binary number* may also refer to a rational number that has a finite representation in the binary numeral system, that is, the quotient of an integer by a power of two.

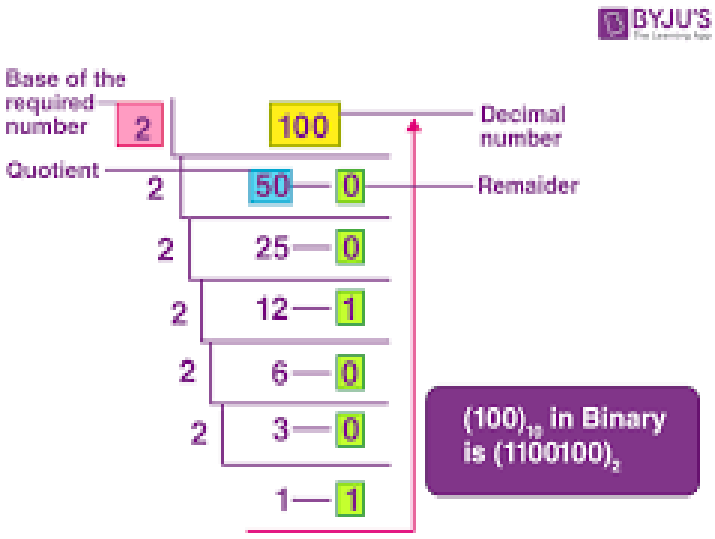
Decimal Number System:

Decimal is a numbering system that uses a base-10 representation for numeric values. The system is used extensively in everyday life to carry out routine tasks such as buying groceries, trading stocks, tracking football scores or scrolling through cable channels. Numbers such as 7, 28, 199 and 532.11 are all examples of decimal numbers. The decimal system is also referred to as the Hindu-Arabic system. Additionally, the term decimal is often used to refer to a fraction that is represented as a number in the decimal system, such as 19.368.

The decimal system consists of 10 single-digit numbers: 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. The number 9 is followed by 10, which is followed by 11, then 12, and so on. The number on the left is incremented by 1 each time the digit to the right goes beyond 9. For example, 20 follows 19, 30 follows 29, 100 follows 99, and 1000 follows 999.

Decimal to binary Conversion

The simplest way to convert a decimal number to a binary number is by dividing the given number repeatedly by 2 until we get 0 as the quotient. Then, we write the remainders in the reverse order to get the binary value of the given decimal number.



Visual Aid: Easier to learn, the conversion of numbers.

Consistency: Ensures all instructions. read and learn for papers

Adaptability: Easy to understand for paper preparation.

2. Please read what your text book says about Numbers System (Page # 57-58)

3. Please watch this YouTube video for the above topic.
https://www.youtube.com/watch?v=AHQwhdz3tlg&pp=ygUtZGVjaW1hbCBudW1iZXIgc3lzdGVtIHRvIGJpbmFyeSBudW1iZXIgc3lzdGVt

Synthesizing/Absorbing the Information:

Study your lesson thoroughly and make your notes.

Practising:

1. Describe how computer save information using binary code?

2. Differentiate between binary and decimal number system?

Feedback: Please if you have any question about the above topic, any word you didn't understand, anything all, please send an email to your teacher and he/she will reply as soon as possible.

Class	Teachers' Names	Teachers' Abbreviations	Teachers' Email Addresses	Instructions
P7A	Ghulam Mustafa	GM	ghulmmustfa@mail.com	P7A students will send their home assignments to their subject teacher (GM) for checking and getting feedback.
P7B	Ghulam Mustafa	GM	ghulmmustfa@mail.com	P7B students will send their home assignments to their subject teacher (GM) for checking and getting feedback.
P7C	Ahsan Bhatti	AB	ahsanbhatti927@gmail.com	P7C students will send their home assignments to their subject teacher (AB) for checking and getting feedback.
P7D	Ahsan Bhatti	AB	ahsanbhatti927@gmail.com	P7D students will send their home assignments to their subject teacher (AB) for checking and getting feedback.
P7E	Ahsan Bhatti	AB	ahsanbhatti927@gmail.com	P7E students will send their home assignments to their subject teacher (AB) for checking and getting feedback.
P7F	Ghulam Mustafa	GM	ghulmmustfa@mail.com	P7B students will send their home assignments to their subject teacher (GM) for checking and getting feedback.
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P7GC	Sara Naheed	SN	saranaheed. 9201@gmail.com	P7GC students will send their home assignments to their subject teacher (SN) for checking and getting feedback