



SACRED HEART SCHOOL

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Website: <http://www.sacredheartkoderma.org/>

Computer

Class – VII (24-April-2020)

NUMBER SYSTEM

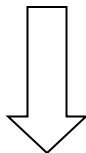
- In previous class we have learnt about Number System, how to change decimal number system into binary number system with some examples.
- Here, two youtube links are given to you. 1st for understanding the concept of changing decimal number system into binary number system and 2nd for understanding Number system from starting.

1st Link: <https://youtu.be/VRNc6uyHhys>

2nd Link: <https://www.khanacademy.org/math/algebra-home/alg-intro-to-algebra/algebra-alternate-number-bases/v/number-systems-introduction>

- Change the following decimal numbers into binary number:
(i) 25 (ii) 38 (iii) 169 (iv) 15 (v) 69
 - Change the following Binary numbers into Decimal number:
(i) 100011 (ii) 10000 (iii) 10110011 (iv) 1010101 (v) 10001111
- (Note: Do in fair copy)

Notes (24-04-2020)



Changing into form decimal no. into Binary no.

$$(25)_{10} = ()_2$$

2	25	
2	12	1
2	6	0
2	3	0
	1	1

Quotient

Remainder

$$\begin{array}{r} 2 \overline{) 25} \textcircled{12} \\ - 24 \\ \hline 1 \end{array}$$

$$\begin{array}{r} 2 \overline{) 3} \textcircled{1} \\ - 2 \\ \hline 1 \end{array}$$

$$\textcircled{11001}_2$$

Check

1	1	0	0	1
<u>16</u>	<u>8</u>	4	2	<u>1</u>

$16 + 8 + 1 = (25)_{10}$

$$\begin{array}{cccc} 1 & 0 & 1 & 1 \\ 8 & 4 & 2 & 1 \end{array}$$

$$\begin{array}{cccccc} 1 & 1 & 0 & 0 & 1 \\ 16 & 8 & 4 & 2 & 1 \end{array}$$

$$= (25)$$

$$\begin{array}{cccc} 1 & 0 & 0 & 0 \\ 8 & 4 & 2 & 1 \end{array} \leftarrow$$

$$(8)$$