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**Converting Decimal to Binary**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Class: 7th**

Use the following table to help you to convert the Decimal numbers to Binary Numbers:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 210 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 |
| 1024 | 512 | 256 | 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |

**Write each decimal number as a binary number:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1- Decimal = (33) 10  Binary =   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **32** | **16** | **8** | **4** | **2** | **1** | | **1** | **0** | **0** | **0** | **0** | **1** |   ***(10001)2*** | 2- Decimal = (50) 10  Binary =   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 32 | 16 | 8 | 4 | 2 | 1 | | **1** | **1** | **0** | **0** | **1** | **0** |   ***(110010)2*** |
| 3- Decimal = (29) 10  Binary =   |  |  |  |  |  | | --- | --- | --- | --- | --- | | 16 | 8 | 4 | 2 | 1 | | 1 | 1 | 1 | 0 | 1 |   ***(11101)2*** | 4- Decimal = (44) 10  Binary =   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 32 | 16 | 8 | 4 | 2 | 1 | | 1 | 0 | 1  ***(101100)2*** | 1 | 0 | 0 | |
| 5- Decimal = (19) 10  Binary =   |  |  |  |  |  | | --- | --- | --- | --- | --- | | 16 | 8 | 4 | 2 | 1 | | 1 | 0 | 0 | 1  ***(10011)2*** | 1 | | 6-Decimal = (22) 10  Binary =   |  |  |  |  |  | | --- | --- | --- | --- | --- | | 16 | 8 | 4 | 2 | 1 | | 1 | 0 | 1 | 1 | 0 |   ***(10110)2*** |