**Worksheet 2**

**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 = (100001)2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 32 | 16 | 8 | 4 | 2 | 1 |
| 1 | 0 | 0 | 0 | 0 | 1 |

 | 2- Decimal = (50) 10 Binary = (110010)2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 32 | 16 | 8 | 4 | 2 | 1 |
| 1 | 1 | 0 | 0 | 1 | 0 |

 |
| 3- Decimal = (29) 10 Binary = (11101)2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 16 | 8 | 4 | 2 | 1 |
| 1 | 1 | 1 | 0 | 1 |

 | 4- Decimal = (44) 10 Binary = (101100)2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 32 | 16 | 8 | 4 | 2 | 1 |
| 1 | 0 | 1 | 1 | 0 | 0 |

 |
| 5- Decimal = (19) 10 Binary = (10011)2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 16 | 8 | 4 | 2 | 1 |
| 1 | 0 | 0 | 1 | 1 |

 | 6-Decimal = (22) 10 Binary = (10110)2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 16 | 8 | 4 | 2 | 1 |
| 1 | 0 | 1 | 1 | 0 |

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