**Binary Help Sheet**

* There are only 2 numbers that can be used to represent binary. These are 0 & 1.
* You can use this table to help you to convert decimal numbers into binary numbers:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 |
|  |  |  |  |  |  |  |  |

**Example 1**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | = 24 |
|  0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |

Because (1 x 16) + (1 x 8) = 24

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | = 24 |
|  0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |

**Example 2**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 128 | 64 | 32 | 16 | 8 | 4 | 2 | 1 | = 99 |
|  0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 |

Because (1 x 64) + (1 x 32) + (1 x 2) + (1x1) = 99