# ASCII Worksheet

Referring to the table at <http://www.asciitable.com/> convert the following binary numbers into text. The first example has been completed for you.

## Example

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 64 | 32 | 16 | 8 | 4 | 2 | 1 |
| 1 | 0 | 0 | 0 | 0 | 0 | 1 |

64 + 1 = 65

Decimal 65 = A

## Question 1

Convert the following binary numbers into the equivalent ASCII characters.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 64 | 32 | 16 | 8 | 4 | 2 | 1 |
| 1 | 0 | 0 | 0 | 1 | 0 | 0 |

Denary: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ASCI Character: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 64 | 32 | 16 | 8 | 4 | 2 | 1 |
| 1 | 0 | 0 | 1 | 1 | 1 | 1 |

Denary: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ASCI Character: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 64 | 32 | 16 | 8 | 4 | 2 | 1 |
| 1 | 0 | 0 | 0 | 1 | 1 | 1 |

Denary: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ASCI Character: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Question 2

1000011

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

Denary: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ASCI Character: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1100001

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

Denary: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ASCI Character: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1110010

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

Denary: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ASCI Character: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

## Question 3

You should now write your first name using in binary. Remember that capital and lower case letters have different binary codes.

## Extension Activity

In addition to ASCII, extended ASCII and Unicode can also be used to encode characters. You should try to find how many binary digits each system uses to encode each character. What are the advantages and disadvantages of using Unicode instead of ASCII?