Exercises: Base conversions, Addition, Multiplication

# Question 1

How many **bytes** does it take to store the binary equivalent of the decimal number 1945?

# Question 2

What is largest number that can be represented with 8 **bits** without considering a sign?

# Question 3

Complete the positional notation tables for the following numbers:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What is 34526 in decimal (Base 10) | | | | |
| Place | 63 | 62 | 61 | 60 |
| Value |  |  |  |  |
| Evaluate |  |  |  |  |
| Sum for Base 10 |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| What is 345216 in decimal (Base 10) | | | | |
| Place | 163 | 162 | 161 | 160 |
| Value |  |  |  |  |
| Evaluate |  |  |  |  |
| Sum for Base 10 |  |  |  |  |

# Question 4

Convert the following numbers to decimal (include your workings!):

1. 1001012
2. 670416

# Question 5

Perform the following calculations (include your workings!):

1. 111010102 + 11112
2. 95224B16 + D2258916

# Question 6

Compute the following (include your workings!):

1. 101112 × 1012
2. 11010112 × 1001012

# Question 7

Convert the following decimal numbers (include your workings!):

1. 14710 to Octal
2. 36210 to Binary
3. 53362010 to Hexadecimal