1. **Convert each of the following binary numbers to decimal formats.**

.

.

.

**2․ Convert each of the following octal numbers to decimal formats.**

**3․ Convert each of the following hexadecimal numbers to decimal formats.**

.

.

.

**4․ Convert each of the following decimal numbers to binary, octal and hexadecimal formats.**

|  |  |  |
| --- | --- | --- |
| **Division** | **Quotient** | **Remainder** |
|  | 1739 | 1 |
|  | 869 | 1 |
|  | 434 | 1 |
|  | 217 | 0 |
|  | 108 | 1 |
|  | 54 | 0 |
|  | 27 | 0 |
|  | 13 | 1 |
|  | 6 | 1 |
|  | 3 | 0 |
|  | 1 | 1 |
|  | 0 | 1 |

|  |  |  |
| --- | --- | --- |
| **Division** | **Quotient** | **Remainder** |
|  | 434 | 7 |
|  | 54 | 2 |
|  | 6 | 6 |
|  | 0 | 6 |

|  |  |  |
| --- | --- | --- |
| **Division** | **Quotient** | **Remainder** |
|  | 217 | 7 |
|  | 13 | 9 |
|  | 0 | D |

|  |  |  |
| --- | --- | --- |
| **Division** | **Quotient** | **Remainder** |
|  | 321 | 0 |
|  | 160 | 1 |
|  | 80 | 0 |
|  | 40 | 0 |
|  | 20 | 0 |
|  | 10 | 0 |
|  | 5 | 0 |
|  | 2 | 1 |
|  | 1 | 0 |
|  | 0 | 1 |

|  |  |  |
| --- | --- | --- |
| **Division** | **Quotient** | **Remainder** |
|  | 80 | 2 |
|  | 10 | 0 |
|  | 1 | 2 |
|  | 0 | 1 |

|  |  |  |
| --- | --- | --- |
| **Division** | **Quotient** | **Remainder** |
|  | 40 | 2 |
|  | 2 | 8 |
|  | 0 | 2 |

|  |  |  |
| --- | --- | --- |
| **Division** | **Quotient** | **Remainder** |
|  | 277 | 1 |
|  | 138 | 1 |
|  | 69 | 0 |
|  | 34 | 1 |
|  | 17 | 0 |
|  | 8 | 1 |
|  | 4 | 0 |
|  | 2 | 0 |
|  | 1 | 0 |
|  | 0 | 1 |

|  |  |  |
| --- | --- | --- |
| **Division** | **Quotient** | **Remainder** |
|  | 69 | 3 |
|  | 8 | 5 |
|  | 1 | 0 |
|  | 0 | 1 |

|  |  |  |
| --- | --- | --- |
| **Division** | **Quotient** | **Remainder** |
|  | 34 | B |
|  | 2 | 2 |
|  | 0 | 2 |

**5. AND operation**

101010 & 110011 = 100010

11110000 & 10101010 = 10100000

**6. OR operation**

101010 | 110011 = 111011

11110000 | 10101010 = 11111010

**7. XOR operation**

101010 110011 = 011001

11110000 ^ 10101010 = 01011010

**8. Addition / Subtraction**

A3 + 1F = C2

FE – B4 = 4A

**9. Take the word “Example123!” and convert it to Unicode.**

[0x45, 0x78, 0x61, 0x6D, 0x70, 0x6C, 0x65, 0x32, 0x33, 0x21]

**10. Search for your first name in Unicode. Write down its character codes.**

[0x4D, 0x61, 0x72, 0x69, 0x6E, 0x65]

**11. Look online for Unicode Emoji charts. Pick 5 emojis, write down them.**

face-glasses - U+1F60E

vampire - U+1F9DB

zombie - U+1F9DF

person surfing - U+1F3C4

person biking - U+1F6B4