Class Participation 1

Your Name: Anthony Jones

Date: 1/25/2021

What is your breakout room number: 17

Names of everyone in your room: Ciara Morrissey, Jacob Zetrouer, Marcus X, Jack Feinstein

This is not going to be graded completely on correctness, but on how much effort you put in.

Remember a number that begins with 0x or 0X is a hexadecimal (base 16) number (hex)

This is a 3 part exercise. Also, at this time we are only dealing with positive numbers.

Part 1:

Perform the following number conversion show your work:

1. 0x39A7F8 to binary

3: 0011

9: 1001

A: 1010

7: 0111

F: 1111

8: 1000

Binary: 1110011010011111111000

1. Binary 1100 1001 0111 1011 to hex

1100: C

1001: 9

0111: 7

1011: B

Hexadecimal: 0xC97B

Part 2:

A single byte can be represented by 2 hexadecimal digits. Fill in the missing entries in the following table, giving the decimal, binary, hexadecimal values. Show your work. You may use the space below the chart to show your work.

|  |  |  |
| --- | --- | --- |
| Decimal | Binary | Hexadecimal |
| 0 | **0000 0000** | **0x00** |
| 167 | **1010 0111** | **0xA7** |
| 62 | **0011 1110** | **0x3E** |
|  | **1000 1000** | **0x88** |
|  | **1111 0011** | **0xF3** |
|  | **0101 0010** | **0x52** |
|  | **1110 0111** | **0xE7** |

167 > Binary

167/2=83R1; 83/2=41R1; 41/2=20R1; 20/2=10R0; 10/2=5R0; 5/2=2R1; 2/2=1R0; 1/2=0R1;

Binary: 10100111

1010: A

0111: 7

Hexadecimal: 0xA7

62 > Binary

62/2=31R0; 31/2=15R1; 15/2=7R1; 7/2=3R1; 3/2=1R1; 1/2=0R1;

Binary: 111110

0011: 3

1110: E

Hexadecimal: 0x3E

Part 3

Fill in the chart.

|  |  |
| --- | --- |
| **n** | **2n Hexadecimal** |
| 9 | 0x200 |
| 16 |  |
|  | 0x800 |
| 14 |  |
|  | 0x40 |