Lab 2 – Number Conversions

Names: ­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, ­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The purpose of this lab is to:

Learn how to convert numbers from one base to another base.

Using the Lecture 2a Slide 3.xlxs spreadsheet determine the decimal values for the min and max binary numbers.

|  |  |  |  |
| --- | --- | --- | --- |
| 5 Bit Binary Min |  | Decimal value = |  |
| 5 Bit Binary Max |  | Decimal value = |  |
| 8 Bin Binary Max |  | Decimal value = |  |
| 8 Bin Binary Min |  | Decimal value = |  |

Using the Lecture 2a Slide 5.xlxs spreadsheet determine what decimal value is equal to the maximum binary number for 6 and 7 bits.

|  |  |  |  |
| --- | --- | --- | --- |
| 6 Bit Binary Max |  | Decimal value = |  |
| 7 Bit Binary Max |  | Decimal value = |  |

Using the Lecture 2a Slide 7.xlxs spreadsheet determine what decimal values are equal to for the minimum and maximum binary numbers.

|  |  |  |  |
| --- | --- | --- | --- |
| Min Decimal No |  | Binary value = |  |
| Max Decimal No |  | Binary value = |  |

Using the Lecture 2a Slide 9.xlxs spreadsheet determine what decimal values are equal to for the minimum and maximum binary numbers.

|  |  |  |  |
| --- | --- | --- | --- |
| Min Decimal No |  | Binary value = |  |
| Max Decimal No |  | Binary value = |  |

Using the Lecture 2a Slide 12.xlxs spreadsheet determine what hexadecimal value are equal to for the minimum and maximum decimal numbers.

|  |  |  |  |
| --- | --- | --- | --- |
| Min Hexadecimal No |  | Decimal value = |  |
| Max Hexadecimal No |  | Decimal value = |  |

Using the Lecture 2a Slide 14.xlxs spreadsheet determine what decimal value produces a value of the following values.

|  |  |
| --- | --- |
| Hexadecimal | Decimal |
| 000 |  |
| 03F |  |
| 07F |  |
| 0FF |  |
| FFF |  |

Using the Lecture 2a Slide 18.xlxs spreadsheet determine what decimal value is equal to the maximum hexadecimal number and binary number.

|  |  |
| --- | --- |
| Max Decimal value = |  |
| Hexadecimal value = |  |
| Binary value = |  |

Observations:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_