**Chapter 1 Exercises – Homework Assignment #1**

1. Appendix D shows how to convert a decimal number to binary. Use the technique shown in Appendix D to convert the following decimal numbers to binary:

|  |  |
| --- | --- |
| **Decimal** | **Binary** |
| 11 | 1011 |
| 65 | 1000001 |
| 100 | 1100100 |
| 255 | 11111111 |

1. Use what you've learned about the binary numbering system in this chapter to convert the following binary numbers to decimal:

|  |  |
| --- | --- |
| **Binary** | **Decimal** |
| 1101 | 13 |
| 1000 | 8 |
| 101011 | 43 |

1. Look at the ASCII chart in Appendix A and determine the codes for each character in the following “Folsom Lake”.

|  |  |
| --- | --- |
| **Character** | **Code** |
| F | 70 |
| o | 111 |
| l | 108 |
| s | 115 |
| o | 111 |
| m | 109 |
|  | 32 |
| L | 76 |
| a | 97 |
| k | 107 |
| e | 101 |

1. Use the Web to research the history of the BASIC, C++, Java, and Python programming languages, and answer the following questions for each language (fill in the table below):
   1. Who was the creator of each of these languages?
   2. When was each of these languages created?

|  |  |  |
| --- | --- | --- |
| **Language** | **Creator** | **When created** |
| **Basic** | Thomas E. Kurtz & John G. Kemeny | 1964 |
| **C++** | Bjarne Stroustrup | 1979 |
| **Java** | James Gosling | 1995 |
| **Python** | Guido van Rossum | 1991 |