**Week 1 Quiz**

1. **What is the largest unsigned base-10 integer that can be stored in 6 bits?**

* 63\_10

1. **Given 01000001 is binary for ASCII ‘A’, what character is represented by 01000100?**

* D.

1. **Assuming an 8-bit integer representation, convert 107 to binary. Then convert it to octal, and hexadecimal.**

* Binary: 01101011
* Octal: 153\_8
* Hexadecimal: 6B\_16

1. **Convert 11111011110\_2 to octal and decimal.**

* Octal: 3736\_8
* Decimal: 2014\_10

1. **Convert 9A9\_16 and then DEAD\_16 to decimal.**

* 2473\_10
* 57005\_10

**Tutorial Questions**

1. **Convert the following numbers to binary and hexadecimal:**
   1. 117\_10
   * 01110101
   * 75\_16
   1. 127\_10
   * 01111111
   * 7F\_16
   1. 128\_10
   * 10000000
   * 80\_16
   1. 255\_10
   * 11111111
   * FF\_16
2. **Other base systems. Convert the following numbers to decimal.**
   1. 1101\_2
   * 14\_10
   1. 7014\_8
   * 3596\_10
   1. 7DE\_16
   * 2014\_10
3. **Binary to Octal and Binary to Hexadecimal.**
   1. **Convert 1 1100 1010 1110 1111 1111\_2 to octal.**
   * 7127377\_8
   1. **Convert 1010 1001 0101 1111 1000\_2 to hexadecimal.**
   * A95F8\_16
   1. **Convert 671\_8 to binary.**
   * 110 111 001\_2
   1. **Convert DEADFACE\_16 to binary.**
   * 1101 1110 1010 1101 1111 1010 1100 1110\_2
4. **Other base-systems to non-decimal.**
   1. **Convert 217\_10 to base 7.**
   * 154.
   1. **Convert 1101\_2 to base 5.**
   2. **Convert 7014\_8 to base 9.**
   * 4834
   1. **Convert DE\_16 to base 6.**
5. **Binary to decimal, octal and hexadecimal.**