COMSC-260-5318 – Assignment #3

Name: Sebastian Silva

Sample Run 1:

```
// comment 1: we make the test to use for our functions
cout << "binary 100110 + 110010 = " << addbin( bin1: "100110", bin2: "110010") << endl;
cout << "binary 111001 + 1010 = " << addbin( bin1: "111001", bin2: "1010") << endl;
cout << "binary 11010011 + 10000111 = " << addbin( bin1: "11010011", bin2: "10000111") << endl;
cout << "binary 1100 + 101101 = " << addbin( bin1: "1100", bin2: "101101") << endl;

cout << "hexadecimal 3F + 4A = " << addhex( hex1: "3F", hex2: "4A") << endl;
cout << "hexadecimal 5BC + 89 = " << addhex( hex1: "5BC", hex2: "89") << endl;
cout << "hexadecimal 1234 + 5678 = " << addhex( hex1: "1234", hex2: "5678") << endl;
cout << "hexadecimal 9A + BC = " << addhex( hex1: "9A", hex2: "BC") << endl;
```

```
binary 100110 + 110010 = 1011000
binary 111001 + 1010 = 1000011
binary 11010011 + 10000111 = 101011010
binary 1100 + 101101 = 111001
hexadecimal 3F + 4A = 89
hexadecimal 5BC + 89 = 645
hexadecimal 1234 + 5678 = 68AC
hexadecimal 9A + BC = 156
```

Sample Run 2:

```
// comment 1: we make the test to use for our functions
cout << "binary 1100 + 1011 = " << addbin( bin1: "1100", bin2: "1011") << endl;
cout << "binary 100110 + 1110 = " << addbin( bin1: "100110", bin2: "1110") << endl;
cout << "binary 100000 + 1000 = " << addbin( bin1: "100000", bin2: "1000") << endl;
cout << "binary 1010010 + 100101 = " << addbin( bin1: "1010010", bin2: "100101") << endl;
cout << "binary 1100 + 1111 = " << addbin( bin1: "1100", bin2: "1111") << endl;

cout << "hexadecimal 3A + 4B = " << addhex( hex1: "3A", hex2: "4B") << endl;
cout << "hexadecimal 12 + EF = " << addhex( hex1: "12", hex2: "EF") << endl;
cout << "hexadecimal CDEF + AB = " << addhex( hex1: "CDEF", hex2: "AB") << endl;
cout << "hexadecimal 9A + BC = " << addhex( hex1: "9A", hex2: "BC") << endl;
cout << "hexadecimal 123456 + 7890 = " << addhex( hex1: "123456", hex2: "7890") << endl;
```

```
binary 1100 + 1011 = 10111
binary 100110 + 1110 = 110100
binary 100000 + 1000 = 101000
binary 1010010 + 100101 = 1110111
binary 1100 + 1111 = 11011
hexadecimal 3A + 4B = 85
hexadecimal 12 + EF = 101
hexadecimal CDEF + AB = CE9A
hexadecimal 9A + BC = 156
hexadecimal 123456 + 7890 = 12ACE6
Press any key to continue . . .
```

Sample Run 3:

```
// comment 1: we make the test to use for our functions
cout << "binary 1010 + 1101 = " << addbin( bin1: "1010",  bin2: "1101") << endl;
cout << "binary 10001 + 11100 = " << addbin( bin1: "10001",  bin2: "11100") << endl;
cout << "binary 100101 + 110000 = " << addbin( bin1: "100101",  bin2: "110000") << endl;
cout << "binary 1101010 + 101111 = " << addbin( bin1: "1101010",  bin2: "101111") << endl;
cout << "binary 10001 + 11110 = " << addbin( bin1: "10001",  bin2: "11110") << endl;

cout << "hexadecimal 45 + 67 = " << addhex( hex1: "45",  hex2: "67") << endl;
cout << "hexadecimal 89 + 01 = " << addhex( hex1: "89",  hex2: "01") << endl;
cout << "hexadecimal F123 + 456 = " << addhex( hex1: "F123",  hex2: "456") << endl;
cout << "hexadecimal 78 + 90 = " << addhex( hex1: "78",  hex2: "90") << endl;
cout << "hexadecimal 987654 + 3210 = " << addhex( hex1: "987654",  hex2: "3210") << endl;
```

```
C:\Users\sebas\Desktop\COMSC-260\3\Sebas
binary 1010 + 1101 = 10111
binary 10001 + 11100 = 101101
binary 100101 + 110000 = 1010101
binary 1101010 + 101111 = 10011001
binary 10001 + 11110 = 101111
hexadecimal 45 + 67 = AC
hexadecimal 89 + 01 = 8A
hexadecimal F123 + 456 = F579
hexadecimal 78 + 90 = 108
hexadecimal 987654 + 3210 = 98A864
Press any key to continue
```

Sample Run 4:

```
// comment 1: we make the test to use for our functions
cout << "binary 1110 + 1001 = " << addbin( bin1: "1110", bin2: "1001") << endl;
cout << "binary 101010 + 11101 = " << addbin( bin1: "101010", bin2: "11101") << endl;
cout << "binary 1101001 + 100111 = " << addbin( bin1: "1101001", bin2: "100111") << endl;
cout << "binary 1011011 + 110011 = " << addbin( bin1: "1011011", bin2: "110011") << endl;
cout << "binary 11100 + 10011 = " << addbin( bin1: "11100", bin2: "10011") << endl;

cout << "hexadecimal 23 + 45 = " << addhex( hex1: "23", hex2: "45") << endl;
cout << "hexadecimal 67 + 89 = " << addhex( hex1: "67", hex2: "89") << endl;
cout << "hexadecimal A234 + 567 = " << addhex( hex1: "A234", hex2: "567") << endl;
cout << "hexadecimal 8C + A0 = " << addhex( hex1: "8C", hex2: "A0") << endl;
cout << "hexadecimal 543210 + BAD = " << addhex( hex1: "543210", hex2: "BAD") << endl;
```

```
binary 1110 + 1001 = 10111
binary 101010 + 11101 = 1000111
binary 1101001 + 100111 = 10010000
binary 1011011 + 110011 = 10001110
binary 11100 + 10011 = 101111
hexadecimal 23 + 45 = 68
hexadecimal 67 + 89 = F0
hexadecimal A234 + 567 = A79B
hexadecimal 8C + A0 = 12C
hexadecimal 543210 + BAD = 543DBD
Press any key to continue . . .
```

Sample Run 5:

```
// comment 1: we make the test to use for our functions
cout << "binary 10010 + 11011 = " << addbin( bin1: "10010", bin2: "11011") << endl;
cout << "binary 101011 + 10010 = " << addbin( bin1: "101011", bin2: "10010") << endl;
cout << "binary 1110100 + 101010 = " << addbin( bin1: "1110100", bin2: "101010") << endl;
cout << "binary 1100111 + 111111 = " << addbin( bin1: "1100111", bin2: "111111") << endl;
cout << "binary 100100 + 111001 = " << addbin( bin1: "100100", bin2: "111001") << endl;

cout << "hexadecimal 12 + 34 = " << addhex( hex1: "12", hex2: "34") << endl;
cout << "hexadecimal 9F + 7E = " << addhex( hex1: "9F", hex2: "7E") << endl;
cout << "hexadecimal B789 + 0AB = " << addhex( hex1: "B789", hex2: "0AB") << endl;
cout << "hexadecimal 4D + 6C = " << addhex( hex1: "4D", hex2: "6C") << endl;
cout << "hexadecimal DEF012 + 345 = " << addhex( hex1: "DEF012", hex2: "345") << endl;
```

```
binary 10010 + 11011 = 101101
binary 101011 + 10010 = 111101
binary 1110100 + 101010 = 10011110
binary 1100111 + 111111 = 10100110
binary 100100 + 111001 = 1011101
hexadecimal 12 + 34 = 46
hexadecimal 9F + 7E = 11D
hexadecimal B789 + 0AB = B834
hexadecimal 4D + 6C = B9
hexadecimal DEF012 + 345 = DEF357
```