SAMPLE RUN 1

```cpp
int main()
{
    //SAMPLE RUN 1
    cout << "SAMPLE RUN 1\n";
    cout << "\n_____\n";
    cout<<"binary 11 + 11 = "<<addbin("11", "11")<<endl;   //you should get 0110
    cout<<"binary 00 + 00 = "<<addbin("00", "00")<<endl; //you should get 00
    cout<<"binary 11111111 + 0 = "<<addbin("11111111", "0")<<endl; //you should get 011111111
    cout<<"binary 0 + 10 = "<<addbin("0", "10")<<endl<<endl; //you should get 10


    cout<<"hexadecimal 0 + 0 = "<<addhex("0", "0")<<endl;  //you should get 0
    cout<<"hexadecimal F + 0 = "<<addhex("F",  "0")<<endl;    //you should get F
    cout<<"hexadecimal F + 1 = "<<addhex("F", "1")<<endl;  //you should get 10
    cout<<"hexadecimal E + 1 = "<<addhex("E", "1")<<endl<<endl; //you should get F


    return 0;

}
```

```
SAMPLE RUN 1


_____

binary 11 + 11 = 110
binary 00 + 00 = 00
binary 11111111 + 0 = 11111111
binary 0 + 10 = 10

hexadecimal 0 + 0 = 0
hexadecimal F + 0 = F
hexadecimal F + 1 = 10
hexadecimal E + 1 = F

Program ended with exit code: 0
```

SAMPLE RUN 2

```cpp
int main()
{
    //SAMPLE RUN 2
    cout << "SAMPLE RUN 2\n";
    cout << "\n_____\n";
    cout<<"binary 1 + 1 = "<<addbin("1", "1")<<endl;
    cout<<"binary 10 + 00 = "<<addbin("10", "00")<<endl;
    cout<<"binary 1111 + 1 = "<<addbin("1111", "1")<<endl;
    cout<<"binary 11 + 10 = "<<addbin("11", "10")<<endl<<endl;


    cout<<"hexadecimal A + A = "<<addhex("A", "A")<<endl;
    cout<<"hexadecimal 6 + A = "<<addhex("6",  "A")<<endl;
    cout<<"hexadecimal 5 + A = "<<addhex("5", "A")<<endl;
    cout<<"hexadecimal F + F = "<<addhex("F", "F")<<endl << endl;


    return 0;

}
```

```
SAMPLE RUN 2

_____________________________________________________

binary 1 + 1 = 10
binary 10 + 00 = 10
binary 1111 + 1 = 10000
binary 11 + 10 = 101

hexadecimal A + A = 14
hexadecimal 6 + A = 10
hexadecimal 5 + A = F
hexadecimal F + F = 1E

Program ended with exit code: 0
```

SAMPLE RUN 3

```cpp
int main()
{
    //SAMPLE RUN 3
    cout << "SAMPLE RUN 3\n";
    cout << "\n_____________________________________________\n";
    cout<<"binary 101 + 010 = "<<addbin("101", "010")<<endl;
    cout<<"binary 010 + 101 = "<<addbin("010", "101")<<endl;
    cout<<"binary 1110 + 1 = "<<addbin("1110", "1")<<endl;
    cout<<"binary 0111 + 1 = "<<addbin("0111", "1")<<endl<<endl;


    cout<<"hexadecimal FFE + 1 = "<<addhex("FFE", "1")<<endl;
    cout<<"hexadecimal DAC + 1 = "<<addhex("DAC",  "1")<<endl;
    cout<<"hexadecimal FA0 + D = "<<addhex("FA0", "D")<<endl;
    cout<<"hexadecimal 101 + 101 = "<<addhex("101", "101")<<endl << endl;


    return 0;

}
```

```
SAMPLE RUN 3

_____________________________________________

binary 101 + 010 = 111
binary 010 + 101 = 111
binary 1110 + 1 = 1111
binary 0111 + 1 = 1000

hexadecimal FFE + 1 = FFF
hexadecimal DAC + 1 = DAD
hexadecimal FA0 + D = FAD
hexadecimal 101 + 101 = 202

Program ended with exit code: 0
```

SAMPLE RUN 4

```cpp
int main()
{
    //SAMPLE RUN 4
    cout << "SAMPLE RUN 4\n";
    cout << "\n_____\n";
    cout<<"binary 11111110 + 1 = "<<addbin("11111110", "1")<<endl;
    cout<<"binary 11111111 + 0 = "<<addbin("11111111", "0")<<endl;
    cout<<"binary 11111111 + 1 = "<<addbin("11111111", "1")<<endl;
    cout<<"binary 11111111 + 1111 = "<<addbin("11111111", "1111")<<endl<<endl;


    cout<<"hexadecimal FF + F = "<<addhex("FF", "F")<<endl;
    cout<<"hexadecimal FFFD + 1 = "<<addhex("FFD",  "1")<<endl;
    cout<<"hexadecimal FFFF + 1 = "<<addhex("FFFF", "1")<<endl;
    cout<<"hexadecimal FFFF + 0 = "<<addhex("FFFF", "0")<<endl << endl;


    return 0;

}
```

```
SAMPLE RUN 4


_____

binary 11111110 + 1 = 11111111
binary 11111111 + 0 = 11111111
binary 11111111 + 1 = 100000000
binary 11111111 + 1111 = 100001110

hexadecimal FF + F = 10E
hexadecimal FFFD + 1 = FFE
hexadecimal FFFF + 1 = 10000
hexadecimal FFFF + 0 = FFFF

Program ended with exit code: 0
```

SAMPLE RUN 5

```cpp
int main()
{
    //SAMPLE RUN 5
    cout << "SAMPLE RUN 5\n";
    cout << "\n_____\n";
    cout<<"binary 11111111 + 11 = "<<addbin("11111111", "1`")<<endl;
    cout<<"binary 11111111 + 111 = "<<addbin("11111111", "111")<<endl;             //power of the digit matters more than the digits themselves
    cout<<"binary 11111111 + 1111 = "<<addbin("11111111", "1111")<<endl;           //270
    cout<<"binary 100000000000 + 1 = "<<addbin("100000000000", "0")<<endl<<endl;   //2048


    cout<<"hexadecimal FF + FF = "<<addhex("FF", "FF")<<endl;
    cout<<"hexadecimal FFF + FFF = "<<addhex("FFF",  "FFF")<<endl;                 //power of the digit matters more than the digits themselves
    cout<<"hexadecimal FFFF + FFFF = "<<addhex("FFFF", "FFFF")<<endl;              //131070
    cout<<"hexadecimal F0000000 + F = "<<addhex("F0000000", "F")<<endl << endl;    //4026531841


    return 0;

}
```

```
SAMPLE RUN 5

_____________________________________________

binary 11111111 + 11 = 100000001
binary 11111111 + 111 = 100000110
binary 11111111 + 1111 = 100001110
binary 100000000000 + 1 = 100000000000

hexadecimal FF + FF = 1FE
hexadecimal FFF + FFF = 1FFE
hexadecimal FFFF + FFFF = 1FFFE
hexadecimal F0000000 + F = F000000F

Program ended with exit code: 0
```