HW0205

為何範例程式會出錯?

給予 bit 的空間不夠導致不夠精確

2^x~2^(x+1)會出現同樣的答案

解決辦法:

讓空間*2 使 2^x~2^(x+1)有不同答案

給予 bit int64_t 的空間

```c
#include <stdio.h>
#include <stdint.h>

int main()
{
    int32_t number = 0;

    scanf( "%d", & number );

    int64_t bit = 1;
    bit = bit << 31;

    for( int i = 0; i < 32 ; i++ )
    {
        if( bit & number )
            printf( "1" );
        else
            printf( "0" );
        bit = bit >> 1;
    }
    return 0;
}
```

```
user@user-VirtualBox:~$ gcc hw0205.c
user@user-VirtualBox:~$ ./a.out
8
00000000000000000000000000001000user@user-VirtualBox:~$ gcc hw0205.c
user@user-VirtualBox:~$ ./a.out
15
user@user-VirtualBox:~$
```