BIT MANIPULATION

XOR Properties

* XOR with 1 will **toggle** the bit
* XOR with 0 will retain bit

OR Properties

* OR with 1 will **set** the bit
* OR with 0 will retain the bit

AND Properties

* AND with 1 will retain the bit
* AND with 0 will **unset** the bit

ITERATION over Bits

* Condition checking can be done with AND
* For iteration/increment left shift either another variable m or right shift the number itself

STL

* ffs() –function to tell pos of rightmost set bit
* \_\_builtin\_popcount()-function to count no of set bits

GENERATING GIVEN RANGE

* Calculate num as = ((1 << r) – 1) ^ ((1 << (l-1)) – 1)

EASY

3-Add 1 to number

5-Turn off Rightmost set bit

7

8

10

11-Count set bits

12-count no of

14-check if a number if power of 2

20-easy,how to turn off particular bit

21-28

34-toggle case in string

31

32

41

45-46

47

51

52

55-nice way of writing

67,68-easy

71

74-find one’s complement

78

82-Most significant bit

83

84-short method

85

86

91

96-very important for me, how to generate my required number

98

75,103-Add and Subtract 2 bit numbers

MEDIUM





