

21 Jul Assignment

(1) num = 88  
result = num << 4

num = 88

binary (88) = 0000 0000 0000 0000 0000 0101 1000

binary (88) → 0000 0000 0000 0000 0000 0000 0101 1000

left shift  
of (88) 0000 0000 0000 0000 0000 0101 1000 0000  
128 + 256 + 512 = 896 additional 4

(2) num = -20  
result = num << 3

I) binary of 20 :-

0000 0000 0000 0000 0000 0000 0001 0100

II) 1's Complement of 20

neg. no. → (1) 1111 1111 1111 1111 1111 1111 1111 1111

0000 0000 0000 0000 0001 0100  
1111 1111 1111 1111 1111 1111 1110 1100

shift by 3 1111 1111 1111 1111 1111 1111 0110 0000



92)

1) num = 75 res: num > 72

$$\begin{array}{r} 75 \\ - 64 \\ \hline 11 \\ - 2 \\ \hline 21 \end{array}$$

→ I) binary of 75

0000 0000 0000 0000 0000 0000 0000 0100 1011



II) Right shift by 2

0000 0000 0000 0000 0000 0000 0000 010010

$$2 + 16 = 18$$

2) num = -38 res: num > 4

→ I) Binary of 38

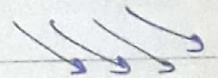
0000 0000 0000 0000 0000 0000 0010 0110

II) 1st Comp of 38

1111 1111 1111 1111 1111 1111 1101 01001

2's Comp

II → 1111 1111 1111 1111 1111 1111 1101 1010



1111 1111 1111 1111 1111 1111 1101