CSC 209 Review 9 Solution

September 13, 2020

1. a) 8

Correct Solution

0

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b) 0

c) 1

d) 6

Correct Solution

15

Notes

- **a)** is 0 because

  $i >> 1 + j >> 1$ is $8 >> 10 >> 1$

  Which is $0 >> 1$

  Which is 0.

- **d)** is 15 because

  $\hat{i}j\&k$ is $78\&9$

  which is 78

  which is 15

2. Use XOR on target bit using value 1.

   This is because the operator of two like values equals to 0, and unequal values equal to 1.

a	b	a ˆ b
0	0	0
0	1	1
1	0	1
1	1	0

3. The macro switches the value of x and y.

   Take for example $x = 100$ (8) and $y = 010$ (4)

   For the first part of macro, we have $x = x \hat{} y = 100 \hat{} 010 = 110$.

   Taking this to second part of macro, we have $y = y \hat{} x = 010 \hat{} 110 = 100$.

   Lastly, we have $x = x \hat{} y = 110 \hat{} 100 = 010$.

   Thus, we can see the value of x and y are switched.