Comp 130 – Introduction to Programming (Java)

Quiz 2

Question 2) Least Common Multiple

In this program, user will provide two <u>integers</u> a, b and your program will compute least common multiple (LCM) of these integers. LCM is the smallest positive integer that is divisible by both a and b.

Your program should give a warning if either a or b is zero.

Hint: A possible implementation of LCM is doing the following calculation. $\dfrac{a \times b}{\text{GCD }(a,b)}$ Here GCD(a,b)

is the greatest common divisor of a and b. Therefore, GCD is the largest positive integer that divides a and b without a remainder. (i.e. LCM(6,8) = (6 X 8)/GCD(6,8) = 48/2 = 24)

<u>Examples:</u>

```
Question2                                                    _ □ X
File   Edit
a: 6
b: 8
LCM: 24
```

```
Question2                                                    _ □ X
File   Edit
a: 4
b: 0
a or b cannot be zero!
|
```

```
Question2                                                    _ □ X
File   Edit
a: 51
b: 289
LCM: 867
```