

**Assignment # 5- Solutions**

**#1.** True or False? Justify your answers.

- (a) If a number is divisible by 8, then it is divisible by 2 and 4.
- (b) If a number is divisible by 2 and 3, then it is divisible by 6.
- (c) If a number is divisible by 2 and 4, then it is divisible by 8.

**#2.** Use the Euclidean algorithm to find the  $\text{GCD}(1739, 5291)$ . Show your work.

**#3.** If  $\text{GCD}(X, 4389) = 33$  and  $\text{LCM}(X, 4389) = 566,181$ , what is  $X$ ?

**#4.** Use the four-step process to answer the following questions.

- (a) Find the greatest 4-digit number that has exactly three factors.
- (b) Find the least number divisible by each of the natural number less than or equal to 12.