**SOL 4.4 Test on Multiplication Study Guide**

**Vocabulary:**

**Multiplication**: a math operation where a number is added to itself a number of times

 4 + 4 + 4 + 4 + 4 = 20 OR 5 X 4 = 20

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**Factor**: a number that is multiplied by another number to find a product

**Product**: the answer to a multiplication problem.

**Multiple:** the product of a given number and another number.

 4 x 2 = 8

8 and 12 are multiples of 4

 4 x 3 = 12



**Array**: data organized using rows and columns

**We will learn that there are different ways to determine the product of a multiplication problem.**

1. **Traditional Algorithm**
2. **Box Method:**

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 400+360+90+81 = 931 \_\_\_\_ +\_\_\_\_+\_\_\_\_+\_\_\_\_ =\_\_\_\_\_\_

**Pick an above method to solve the following word:**

There are 32 boxes that Ms. Johnson needs to ship. Each box holds 357 books. How many books will Ms. Johnson be able to send?

**Multiplication Using Estimation:** Estimate the following products.

Helpful hint: When you're multiplying by multiples of 10 you can multiply the counting numbers and then add the 0's to the final answer.

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Derek bought 26 boxes of chocolates. There were 64 chocolates in each box. **About** how many chocolates did Derek buy?