Math Notes 1/17/17

Factor x Factor = Product

A strategy: Use easy numbers when learning something new – if it works with easy numbers – it will work with nasty numbers and letters.

So 2 x 3 = 6 If we don't know one of the factors (2) we divide 6/3 = 2
If we don't know the other factor, we divide 6/2 = 3

This same process applies to expressions like **20 + 35x**
Think: What do the two numbers have in common? Whose family are they in? GCF (greatest common factor?) Answer: 5 is a factor of both 20 and 35.
20/5 = 4 and 35x/5 = 7x so the **factored answer** would look like this: **5(4 + 7x)**

Factor: 20 + 35x = 5(4+ 7x)

Your turn: Factor 12 + 18x _____

<u>When answering word problems with a variable you MUST follow these steps:</u>
(Use problem 1 on page 176 as your model)

1. Annotate the problem
2. Identify the variable - **n** represents the **<u>n</u>**umber of boxes of balls
3. Substitute (replace) the given facts from the problem for example in Problem 2 on page 176: (He buys 9 boxes) Replace 9 for the n in the expression 14 + 12n and 23 + 16n or 37 + 28n
   37 + 28(9) = 289
4. Write a sentence answer in the context of the problem. "The manager now has a total of 289 balls of both types." Or " The manager now has 289 baseballs and tennis balls combined."

Finish page 176 (may skip #10) and Do page 177 (# 16 and # 17 are challenging).