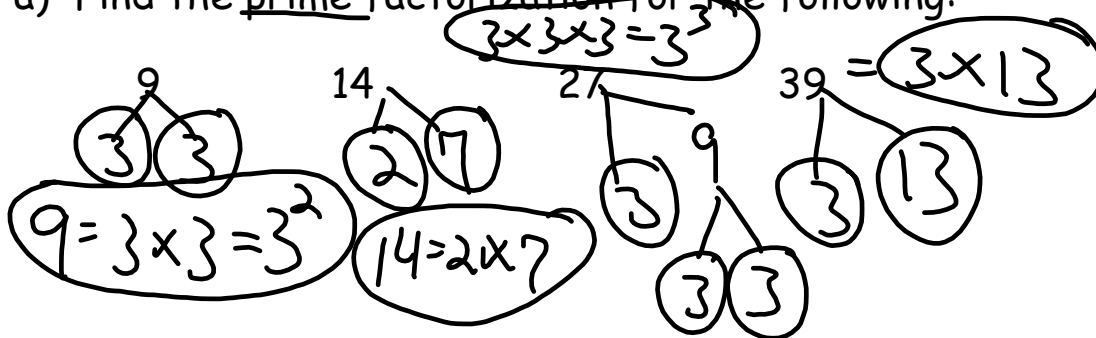


D. I. R. T. Day 1

a) Find the prime factorization for the following:



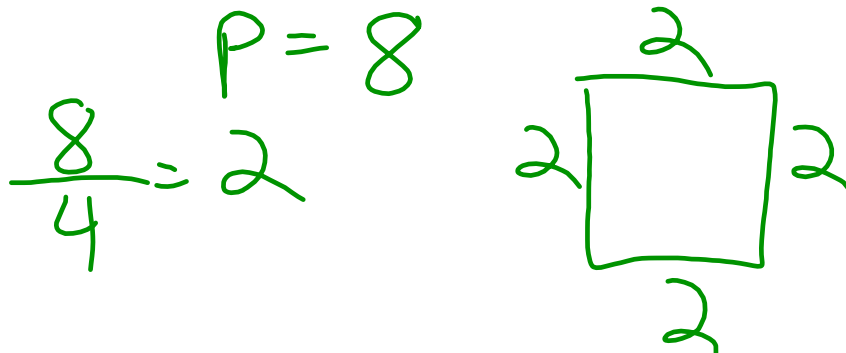
b) Multiply

$$(3)(x+2) = 3x+6$$

c) Find the missing term.

$$\underline{4x}(x) = 4x^2$$

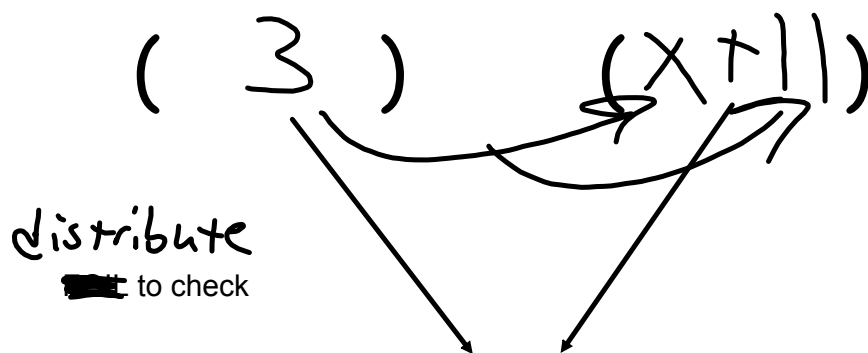
d) The perimeter of a square is 8 find the length of each side...



Unit D Day 1 (GCF)

I can find the Greatest Common Factor

A **Greatest Common Factor** is the largest possible term that will go into all the terms.



$$\underline{3x + 33}$$

Is this what you started with?

Factor by finding the Greatest Common Factor

Ex 1....

$$GCF = \underline{5}$$

$$a.) \frac{5x}{5} + \frac{25}{5}$$

$$(5)(x+5)$$

$$b.) 7x + 49$$

$$\begin{array}{c} \diagup \quad \diagdown \\ 7 \quad x \\ \diagdown \quad \diagup \\ 7 \quad 7 \end{array}$$

$$GCF = 7$$

$$(7)(x+7)$$

Factor by finding the Greatest Common Factor

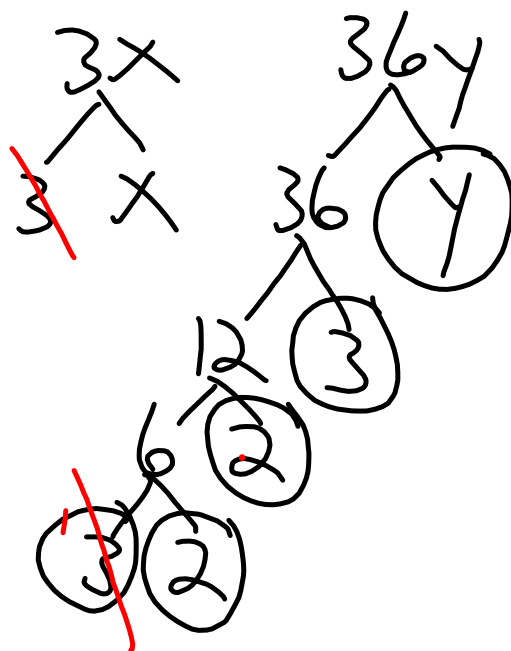
Ex 2.... a.) $2x + 14$

$$\boxed{2(x+7)}$$

b.) $3x - 36y$

$$3(x-12y)$$

$$\frac{3x}{3} - \frac{36y}{3}$$



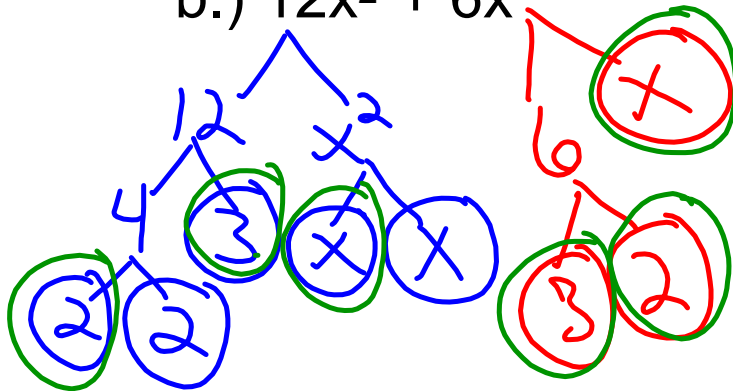
Factor by finding the Greatest Common Factor

Ex 3.... a.) $\frac{6x}{3} + \frac{30y}{3} - \frac{15z}{3}$ GCF = 3

$$3(2x + 10y - 5z)$$

b.) $12x^2 + 6x$

GCF = $6x$



$$\frac{12x^2}{6x} + \frac{6x}{6x}$$

$$6x(2x + 1)$$

Factor by finding the Greatest Common Factor

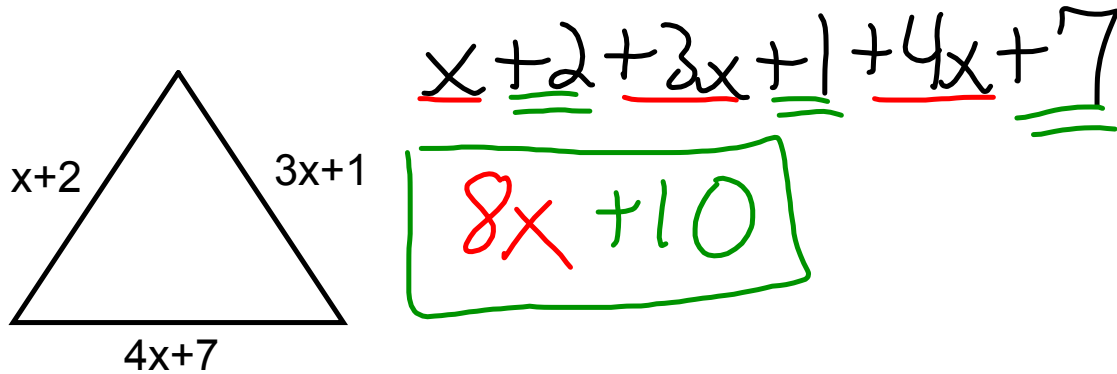
Ex 4... a.) $\frac{25x^4}{5x^3} - \frac{20x^3}{5x^3}$ GCF = $5x^3$

$$5x^3(5x - 4)$$

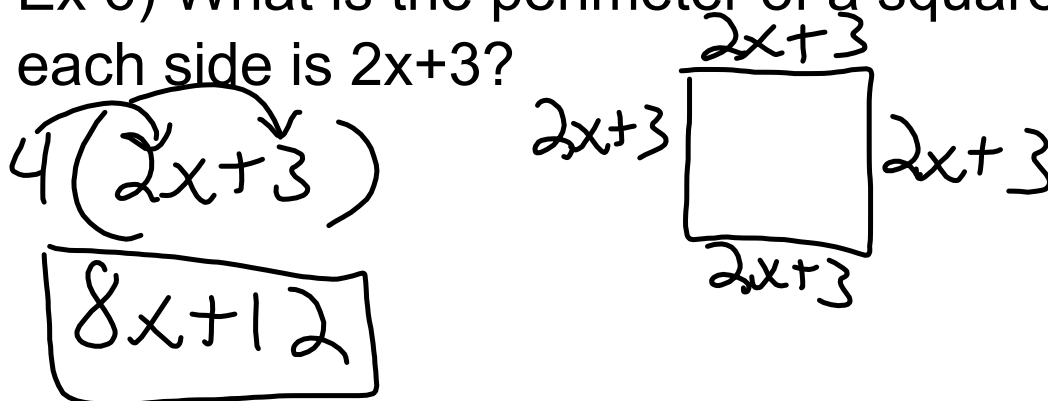
b.) $\frac{2x^2y^2}{2xy^2} + \frac{16xy^3}{2xy^2}$ GCF = $2xy^2$

$$2xy^2(x + 8y)$$

Ex. 5) Find an expression for the perimeter of the following triangle in terms of x



Ex 6) What is the perimeter of a square when each side is $2x+3$?



Complete the following worksheet for practice