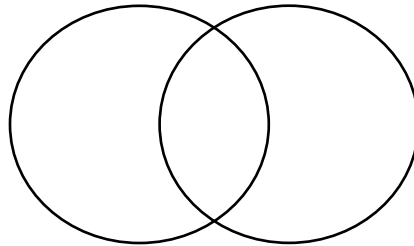**10C - Finding the Quotient   10D - Rewriting Polynomials**

Objective: SWBAT rewrite the polynomial using the distributive property when finding the area of the rectangle and find the GCF when finding the quotient.

Bell Ringer : *What are the similarities and differences of the two methods?*

$5(x + 3)$ is the same as

$$
\begin{array}{c}
x + 3 \\
x + 3 \\
x + 3 \\
x + 3 \\
\underline{x + 3} \\
5x + 15
\end{array}
$$

$(x + 3) \cdot$ ____ $= (12x + 36)$

Or

How many $(x + 3)$ does it take to get $(12x + 36)$?

Find the Area	Find the Quotient
$(x + 3)$ A = L x W 5 *5 is the GCF of the Area* $5(x + 3)$ $5x + 15$	$(x + 3)$ $A = (12x + 36)$? *12 is the GCF of the Area* $\dfrac{12x + 36}{x + 3}$ $\dfrac{12(x + 3)}{(x + 3)} = 12$
$(3z + 17)$ 12	$(3z + 17)$ $A = (9z + 51)$?
$(16b - 2)$ 11	$(16b - 2)$ $A = (80b - 10)$?
$(2y + 5)$ 6	$(2y + 5)$ $A = (6y + 15)$?

Simplify the expression Simplify the expression $-2(x-3)$ $-4(7+5x)$	$(3a-1)$ $\boxed{A=(18a-6)}$?
Simplify the expression Simplify the expression $-6(x+5)$ $4(1-x)$	$(30c-13)$ $\boxed{A=(270c-117)}$?
Simplify the expression $6-(x+2)$	Simplify the expression $9-2(2+3x)$
Simplify the expression $4x-2(5x-3)$	Simplify the expression $8x-(1-5x)$

Reflection: What have you learned?