

# Equivalent Expressions — WITH THE — Distributive Property

Name \_\_\_\_\_

Math 6

Period \_\_\_\_\_

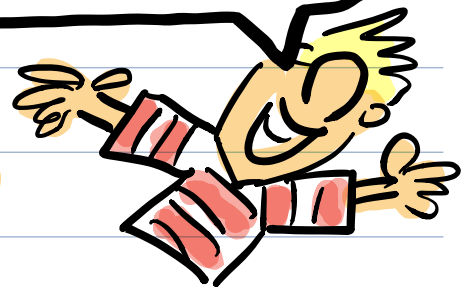
We have talked about Distributive Property as multiplying groups.

"I need two happy meals with a cheeseburger, fries, and small drink."

YOUR ORDER:

2 Groups

$$2(c + f + s) = 2c + 2f + 2s$$



Mental Math



OR

$$25 \times 18 \Rightarrow 25 \times (10 + 8) = 25(10) + 25(8)$$
$$= 250 + 200$$
$$= 450$$

OR

Simplifying Expressions


$$3(2x + 4) = 3 \cdot 2x + 3 \cdot 4$$
$$= 6x + 12$$

We are finding Equivalent Expressions


$$4(5 + 2a) = \underline{\hspace{4cm}}$$


$$8(x - 10) = \underline{\hspace{4cm}}$$

What if you were asked to do the D.P. BACKWARDS!

  
8(x-10) =  $8^*x - 8^*10$   
Common factor = 8

*Note: Red arrows point from the circled 8s in the equation to the truck illustration.*

  
4x + 24  
Common factor = \_\_\_\_\_

  
12y + 15x + 90  
Common factor = \_\_\_\_\_

15a + 10b + 25c  
Common factor = \_\_\_\_\_

THIS IS CALLED FACTORING

YOU TRY

①  $10r + 8m =$  \_\_\_\_\_ GCF = \_\_\_\_\_

②  $24q - 60 =$  \_\_\_\_\_ GCF = \_\_\_\_\_

★  $6x + 4x =$  \_\_\_\_\_ GCF = \_\_\_\_\_