Lesson 3-6 The Distributive Property

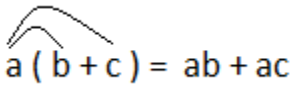
SWBAT: Use the distributive property to simplify algebraic expressions.

Distributive Property:

Can help us simplify an algebraic or numeric expression with parenthesis.

Ex: a (b + c) = ab + ac

- You take the number or variable that is on _____of the parenthesis and_____ it to everything on the inside of the parenthesis.



Ex: 7 (5 + 2) - We will use the distributive property and multiply the 7 to both
35 + 14 the 5 and the 2.
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Use the distributive property to simplify:

① 4 (3n + 6) ② 8 (7 – 3m + 4p) ③ 12 (2a + 3b – 5) ④ a (3b – 5m)

Factoring Expressions:

- Do the reverse of what we were just doing. The _____of the distributive property
- Find the _____ of each number and then divide it out and put it on the outside of parentheses. (use the division ladder method here!!!)

Ex: 20 + 8 - The GCF of 20 and 8 would be 4
4 (+) - Now put the 4 on the outside of the parenthesis
4 (5 + 2) - To find the missing numbers, divide them by 4

Factor each expression:

① 18 + 24 ② 84 + 60 ③ 3n + 21 ④ 48y + 80z + 64

Challenge: Which expression is not the same as the others?

a. (-3a • c) + (-3b • c) b. (b + a) • -3c

c. -3b • (c + a) d. (a + b) • -3c