

Topic/Objective:

7.3 Distribute

Name:

Class/Period

Date:

Essential Question (Big Idea):

How do you group things together?

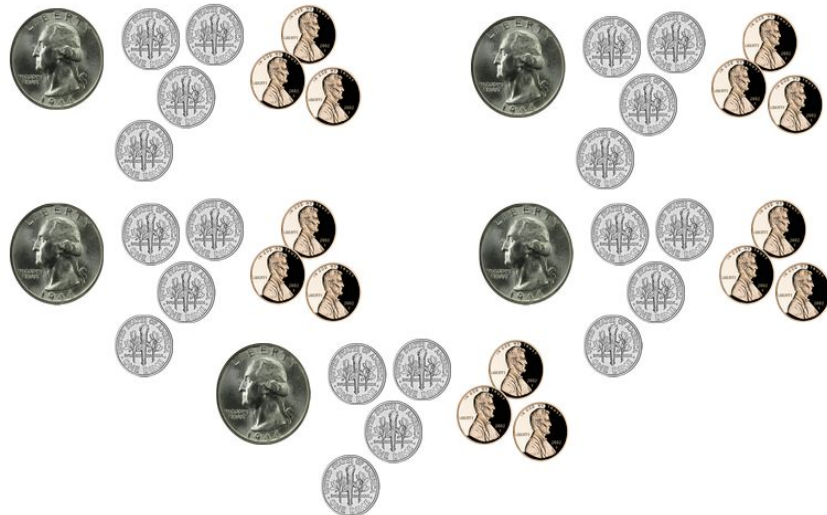
Questions:

How much money do you see?

What are some ways to add these coins together?

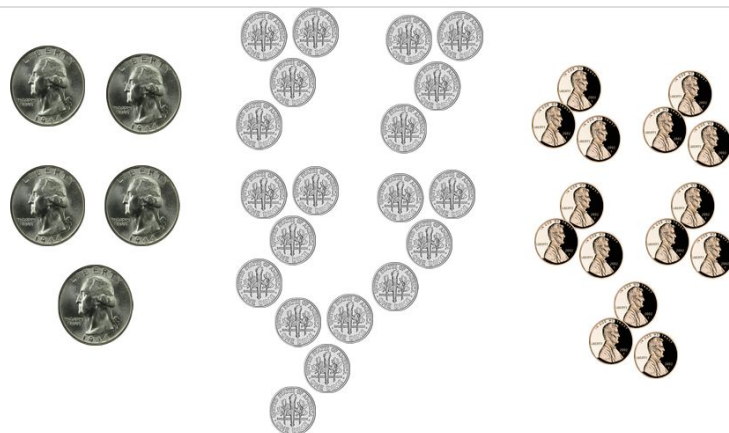
What is the like terms strategy?

Notes:



Strategies for adding coins together:

- 1) Add like terms (Quarters + quarters)
- 2) Symbolic (five quarters = 5q)
- 3) Distributive (five groups of 0.68 cents)



What is the symbolic strategy?

$$\begin{aligned} &5q + 20d + 15p \\ &= 5(0.25) + 20(0.10) + 15(0.01) \\ &= 1.25 + 2.00 + 0.15 \\ &= \$3.40 \end{aligned}$$

What is the distributive strategy?



Why do you have to multiply everything by 5?

Remember:

5 groups of 1 quarter = 5 quarters

5 groups of 4 dimes = 20 dimes

5 groups of 3 pennies = 15 pennies

$$5(q + 4d + 3p)$$

$$5q + 5(4d) + 5(3p)$$

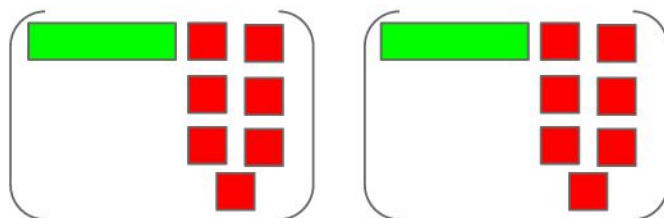
$$5q + 20d + 15p$$

Example 1
What is a picture of
distributing?

Example 1
How do you distribute
using symbols?

Example 2
What is another picture
for distributing?

$$2(x - 7)$$



$$2(x) = \text{two green bars} \quad 2(-7) = \text{fourteen red squares}$$

$$2(x - 7)$$

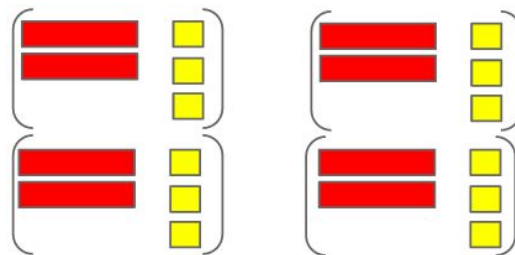
$$2(x) + 2(-7)$$

$$2x + -14$$

or


$$2x - 14$$

$$4(-2x + 3)$$



$$4(-2x) = \text{eight red bars} \quad 4(+3) = \text{twelve yellow squares}$$

Example 2
How do you distribute
using symbols?

$$4(-2x + 3)$$


$$4(-2x) + 4(+3)$$

$$-8x + 12$$

Example 3
How do you distribute
using symbols?

$$-3(-3x + 5)$$


$$(-3)(-3x) + (-3)(+5)$$

$$9x + -15$$

or

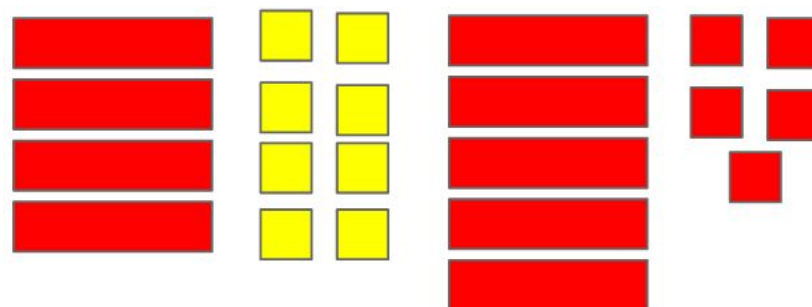
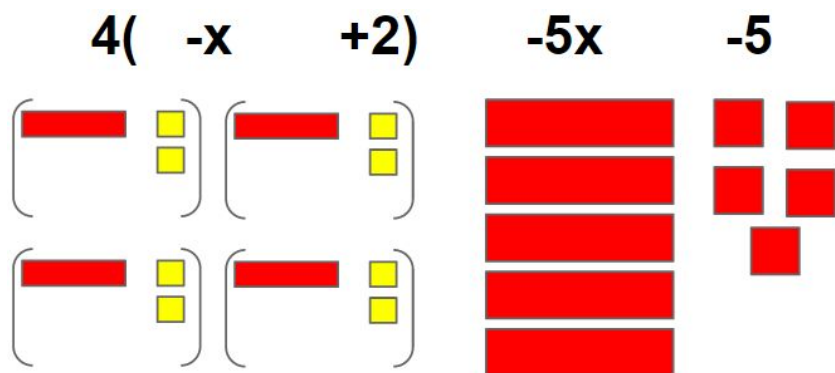
$$9x - 15$$

Example 4
How do you distribute,
and then add like terms

What do you have after
you distribute the 4?

What's the simplest
expression?

Example 5
How do you distribute,
and then add like
terms?



$$-9x + 3$$

$$-(-6x + 4) + 2(9x - 6)$$

$$= +6x - 4 + 18x - 12$$

$$= 6x + 18x - 4 - 12$$

$$= 24x - 16$$

Summary: