SC Algebra 1
1.4 – Distributive Property

Warm Up:

Evaluate.

1. $4 + 3 + 2 * 5$
2. $\frac{2}{5} - \frac{1}{10} \div \frac{3}{5}$
3. $(25 - 4^2) * 3 + 2$
4. $(16 - 3^2) + (2 + 3)^2$
5. Ravi earned $30 on Monday and twice as much on Tuesday. On Wednesday, he spent half of the money he earned on Monday and Tuesday. How much did he have left?

1.3 Homework Questions?

Speak Like A Mathematician:

coefficient:

like terms:

simplest form:

equivalent expressions:

Key Concept – Properties of Equality	
Distributive Property	
Words:	
Symbols:	
Examples:	

A look ahead…

Using the Symmetric Property, you can write the distributive property in reverse order:

$$ab + bc = a(b + c)$$

This is called factoring.

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Example 1: Applying the Distributive Property

- In a recent year, the median salary for an engineer in the United States was $55,000 and the median salary for a computer programmer was $52,000.

  Write an expression to estimate the cost for a business to employ an engineer and a computer programmer for 5 years.

  Evaluate the expression to estimate the total cost for a business to hire both for 5 years.

This question was taken directly from your online homework.

Example 2: Mental Math

Use the distributive property to rewrite and evaluate each expression.

- $4(23)$
- $5 * 99$
- $4 * 1002$
- $5\left(4\frac{1}{5}\right)$

So was this one.

Example 3: Distribute an Algebraic Expression

Use the distributive property to simplify each expression.

$4(5x - 7)$

$(3y^2 + y - 8)6$

$-6(r + 3g - t)$

$(-2m + 5b - 2k)2$

$-4\left(4a + 2b - \frac{1}{2}c\right)$

And this one.

Combine Like Terms - (CONCEPT CHECK)

Simplify each expression, if possible.

- $14a + 18a$
- $4b^2 + 9b - 3b$
- $b^2 + 13b + 13$

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Example 4: Write and Simplify Expressions

Write an algebraic expression for each verbal expression, then simplify it.

- three times the sum of 2x and 3y, decreased by twice the difference of 4 and y.

- the product of 9 and t squared, increased by 3 times the sum of 2 and t squared.

Example 5: Simplify Using the Distributive Property

- $6d + 4(3d + 5)$

- $4(fg + 3g) + 5g$

- $2(n + 2n - 5)$

Tonight's Homework: