


common core warm ups

Oct 7-7:53 PM

Multiply n by 4 and then add 3 to your answer.
Add 3 to n and then multiply your answer by 4.
Add 5 to n and then divide your answer by 3.
Multiply n by n and then multiply your answer by 5.
Multiply n by 5 and then square your answer.




Look closely at the words and the expressions. They almost sound the same, but they are quite different!

Oct 8-5:01 PM

The Distributive Property
 multiplying with addition
 $a(b+c)=ab + ac$
 multiplying with subtraction
 $a(b-c)=ab - ac$

Mar 27-2:38 PM

When combining like terms, sometimes you have to use the DISTRIBUTIVE property!

Ex:
 $4(2x + 3) =$ 

Multiply both terms by the number outside the parentheses.

4 times 2x = 8x
 4 times 3 = 12

Mar 24-2:23 PM

Simplify each expression.

- $5(x + 6)$
- $8(r - 10)$
- $4(x + 2) + 2(x - 1)$

HINT: Apply the distributive property first, then combine like terms!

Mar 27-2:38 PM

- $2(a + 4)$
- $8(x + y + 2z)$
- $5(x+2) + 9(7+x)$

HINT: Apply the distributive property first, then combine like terms!

Mar 27-2:39 PM

Simplify the expressions:

$$5(x+3) + 3(y+1)$$

$$2y + 8(y+1) + 5(x+5)$$

Sep 21-7:40 AM

Translating Words to Math

Oct 11-11:20 AM

6+n

a number times twelve

three less than a number

eight times a number plus one

Oct 11-9:58 AM

Write down what you hear.

You will have to write parenthesis in many of these expressions when you hear them.

three times the difference of a number and 2

one-fourth of the sum of 12 times a number and 8

one-half the difference of 6 times a number and 10

subtract 7 from a number and multiply the result by 4

Oct 8-4:37 PM

Speak the algebraic expressions out loud - You are 'talking algebra'

Look at the difference:

Teacher: Tell me in words what this one says. [Teacher writes: $3 + \frac{n}{2}$.]

Student: Three add n divided by two.

Teacher: How would you read this one then? [Teacher writes: $\frac{(3+n)}{2}$.]

Student: Three add n divided by two. Oh, but in the second one you are dividing it all by two.

Teacher: So can you try reading the first one again, so it sounds different from the second one?

Student: Three add ... [pause] ... n divided by two [said quickly]. Or n divided by two, then add three.

Oct 8-5:02 PM


Cut and paste activity

I am going to give each group two sets of cards, one with expressions written in algebra and the other with words.

Take turns to choose an expression and find the words that match it. [$4(n + 2)$ matches 'Add 2 to n then multiply by 4'; $2(n + 4)$ matches 'Add 4 to n then multiply by 2'.]

When you are working in groups, you should place these cards side by side on the table and explain how you know that they match.

If you cannot find a matching card, then you should write your own using the blank cards provided. [$4n + 2$ does not match any of the word cards shown on Slide P-1. The word card 'Multiply n by two, then add four' does not match any of the expressions.]



wrap up (next 2 slides)

Oct 8-5:06 PM

1. Write algebraic expressions for each of the following:

- Multiply n by 5 then add 4.
- Add 4 to n then multiply by 5.
- Add 4 to n then divide by 5.
- Multiply n by n then multiply by 3.
- Multiply n by 3 then square the result.

Oct 11-7:44 AM

2. The equations below were created by students who were asked to write equivalent expressions on either side of the equals sign.

Imagine you are a teacher. Your job is to decide whether their work is right or wrong. If you see an equation that is false, then:

- Cross out the expression on the right and replace it with an expression that is equivalent to the one on the left.
- Explain what is wrong, using words or diagrams.

$$2(n + 3) = 2n + 3$$

$$\frac{10n - 5}{5} = 2n - 1$$

$$(5n)^2 = 5n^2$$

$$(n + 3)^2 = n^2 + 3^2 = n^2 + 9$$

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Attachments

IHaveWhoHasAlgebraicExpressions.pdf

Task Cards & Student Recording Sheet.pdf