Warm Up: •PRIOR KNOWLEDGE CONNECTION
Time: about 10 minutes:

Name:_____
Date:____/_____/____
period:_____

Daily Skills Warm-Up

Lesson 2-3

Multiply each expression.

1. $5(4x + 3)$

2. $6(2v - 8)$

3. $-3(7 - k)$

4. $(9 + 5c)(-4)$

Write an expression using parentheses for each model. Then multiply.

5.

6.

Simplify.

7. $9 - (5 - 8)$

8. $7(4 - 6) - 3$

Aug 9-9:01 PM

Name:_____
Date:____/_____/____
period:_____

Homework Check: Exercise number:_____

Aug 9-9:03 PM

LESSON 2 -3

Name:_____
Date:____/_____/____
period:_____

Anticipatory Set: *How will you get students hooked? (Tell students they will learn how to)*
Time: (approx. 2 min)

Let me remind you that similar items are often grouped together. Examples are products on supermarket shelves and clothing in dresser drawers. Group the following names in similar groups: a lion, a giraffe, a cup, a lion and a turtle.

ANSWER:

Teacher: Hernandez, Hamlet
Subject: Pre-Algebra
Date:
periods : 1, 5 and 6
Room: 111

UNIT 1

LESSON 2 -3

Lesson

SIMPLIFYING EXPRESSIONS

page 74 .

Chapter 2
Subject: Pre-Algebra
Text: Prentice Hall

Jul 25-11:55 AM

CLASS OBJECTIVE:

LESSON 2 -3

Time: 45 minutes

Clear and Specific Objectives : *What are the student outcomes for this lesson?*

Students will

I will learn to simplify algebraic expressions. I will know what we call a term, a constant, a like term, and a coefficient. I will name the part in an algebraic expression. I will find out that by creating a model, I can simplify an expression more concretely. I will understand that some times it is convenient to use the distributive property to simplify an algebraic expression. Finally I will understand the process in using deductive reasoning in justifying the process of simplification when simplifying an algebraic expression.

Jul 25-12:09 PM

Introduction:

LESSON 2 -3

SIMPLIFYING VARIABLE OR ALGEBRAIC EXPRESSIONS PAGE 74

Keep in mind:

What's a term?
What's a constant?
What's a like term?
What's a coefficient?
How do you simplify a variable expression?
What's deductive reasoning?

Aug 4-1:48 PM

Remember a term is a number or the product of a number and a variable(s).

Example: $-3x$, $5xy$, 3

To find the number of terms in an algebraic expression, distinguish between the different operation symbles

Example: $3x + 5b - 4$

Sep 14-7:54 PM

Remember that a constant term is a tem that has no variable.

Example: 3, 4, 0, etc ....

Rember that like terms have the same variables.

Example 3x, 4x, 5x etc....

Sep 14-8:16 PM

Remember that a coefficient multiplies a variable.

in the expression 4x, the coefficient term is 4.

Do try these 1, 2, 3 on page 75 in the pre algebra text.

Sep 14-8:19 PM

Direct Instruction/ Modeling: *(the teacher demonstrates (Include differentiation and/or checking for understanding for above, at and below grade level students)* Time: (approx. 10 min)

LESSON 2 -3

QUESTION FOR EXAMPLE 1 ON PAGE 74:
How is it possible to identify the coefficients, the like and the constant terms in an algebraic expression?

READ:
• Read example 1 on page 74.

EXPLAIN: Explain example one in your own words. optional

GUIDED PRACTICE: (Work with a partner)
Do exercises 1, 2, and 3 on page 74. You may check answers on the back of the book.

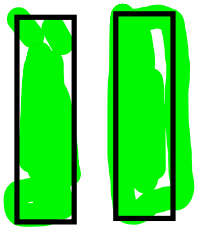
Jul 25-12:23 PM

Remember that you can draw a model to simplify expressions. You can model x by drawing a green rectangle Like the one to the right:

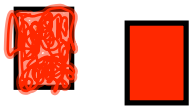
Sep 14-8:24 PM

To model a constant term, use a yellow square:

You can model 2x like this



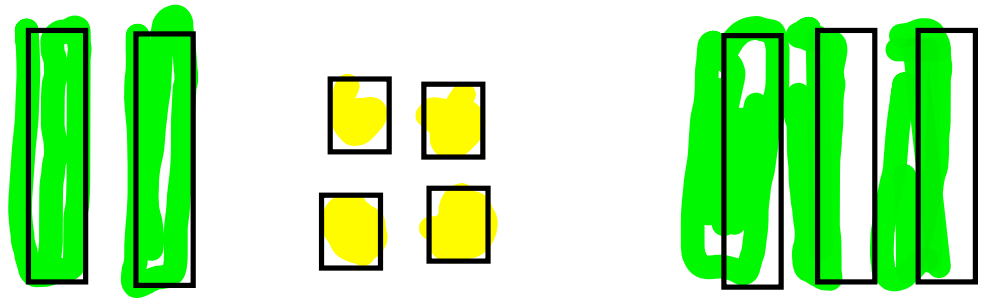
You can model −2 like this

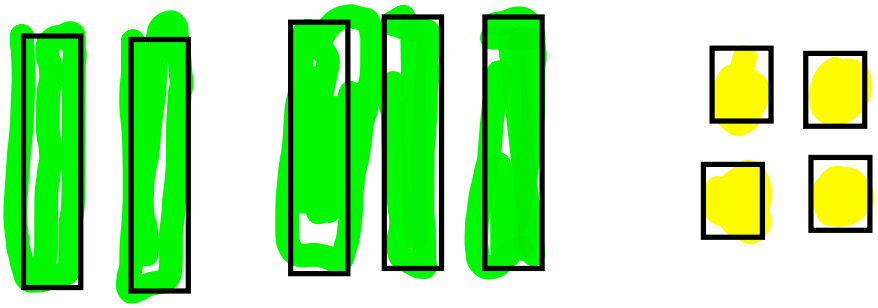


Sep 14-8:24 PM

Example 2.
Draw a model then simplify

$2x + 4 + 3x$





What's the answer?

Sep 14-9:08 PM

Thus, to simplify
$2x + 4 + 3x$
use the distributive property
or use a model.

Example:

$2x + 4 + 3x$ = original Expression
$2x + 3x + 4$ = Commutative prop.
$x(2+3) + 4$ = Distributive prop.
$5x + 4$ = PEMDAS

Sep 14-9:15 PM

Direct Instruction/ Modeling: *(the teacher demonstrates (Include differentiation and/or checking for understanding for above, at and below grade level students)* Time: (approx. 10 min)

LESSON 2 -3

QUESTION FOR EXAMPLE 2 ON PAGE 75 :
How is it possible to simplify an expression using a model?

READ:
• Read example 2 on page 75.

EXPLAIN: Explain example two in your own words. optional

GUIDED PRACTICE: (Work with a partner)
Do exercise 4 on page 75. You may check the answer on the back of the book.

Jul 25-12:23 PM

Example 3 page 75

simplify $5y + y$

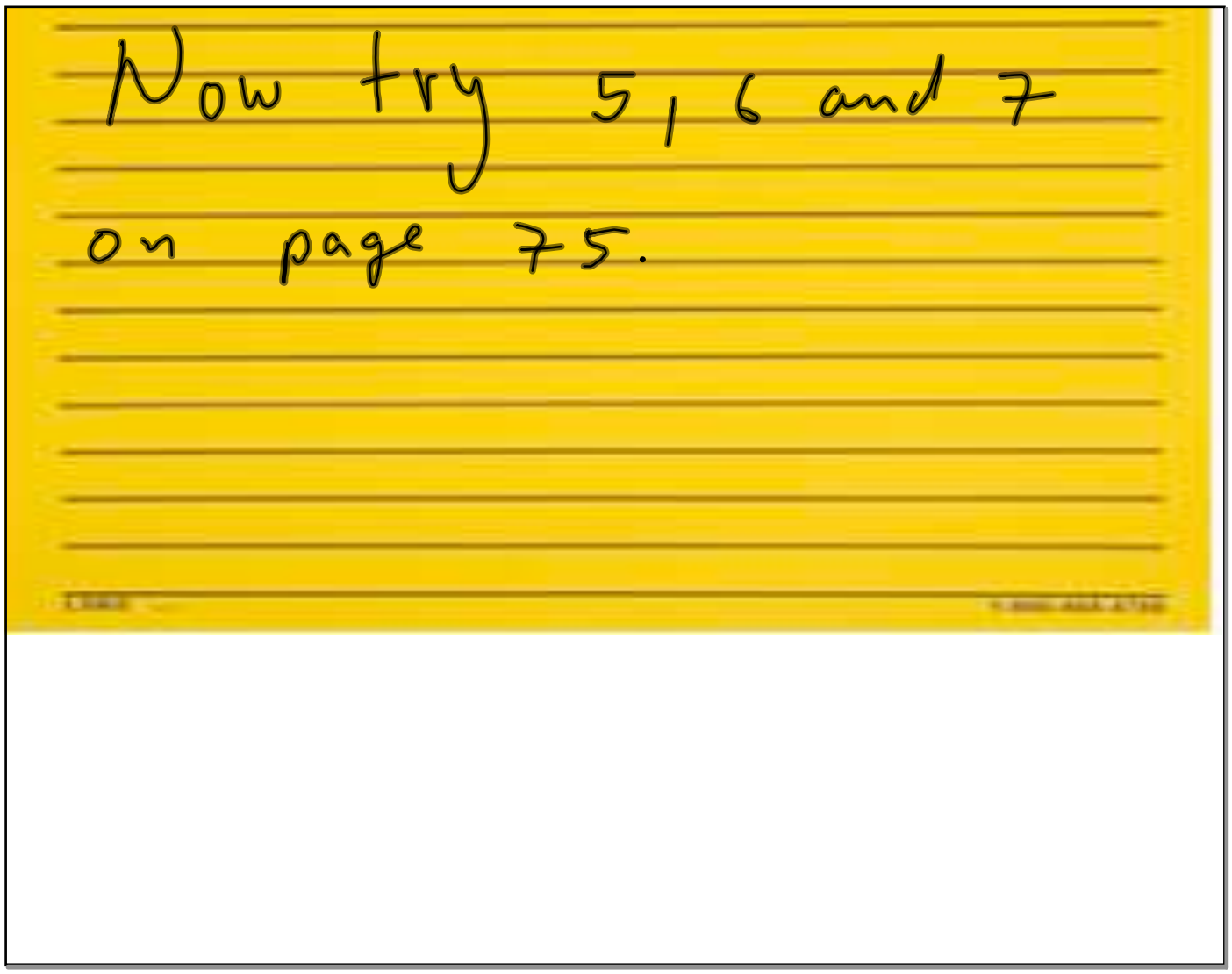
$5y + y = 5y + 1y$ Identy property

$= y(5+1)$ Distributive prop

$= y5$ Commutative prop

$= 5y$.

Sep 14-9:19 PM



Sep 14-9:19 PM

Direct Instruction/ Modeling: *(the teacher demonstrates (Include differentiation and/or checking for understanding for above, at and below grade level students)* Time: (approx. 10 min)

LESSON 2 -3

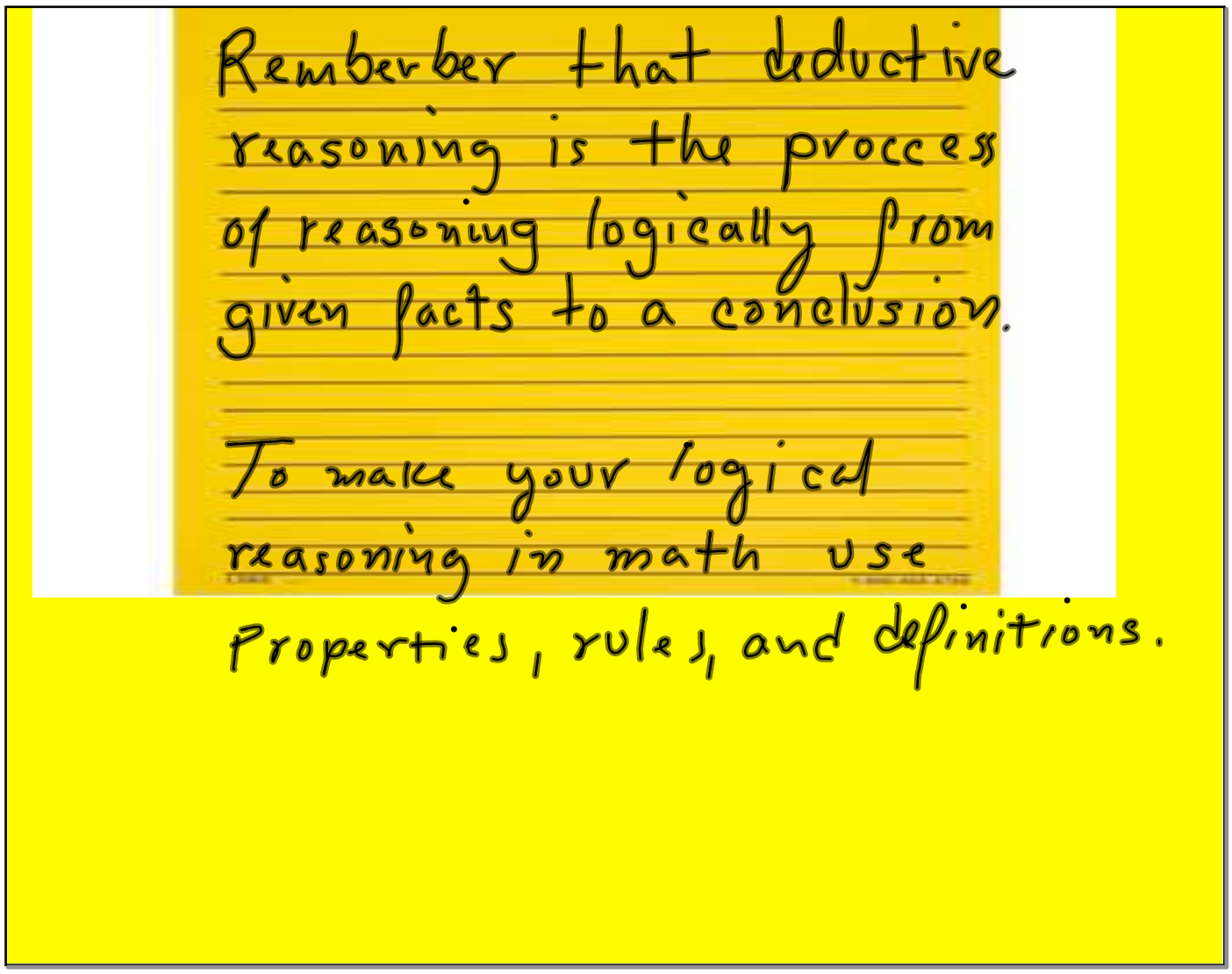
QUESTION FOR EXAMPLE 3 ON PAGE 75 :
How is it possible to use the distributive property to combine like term?

READ:
• Read example 3 on page 75.

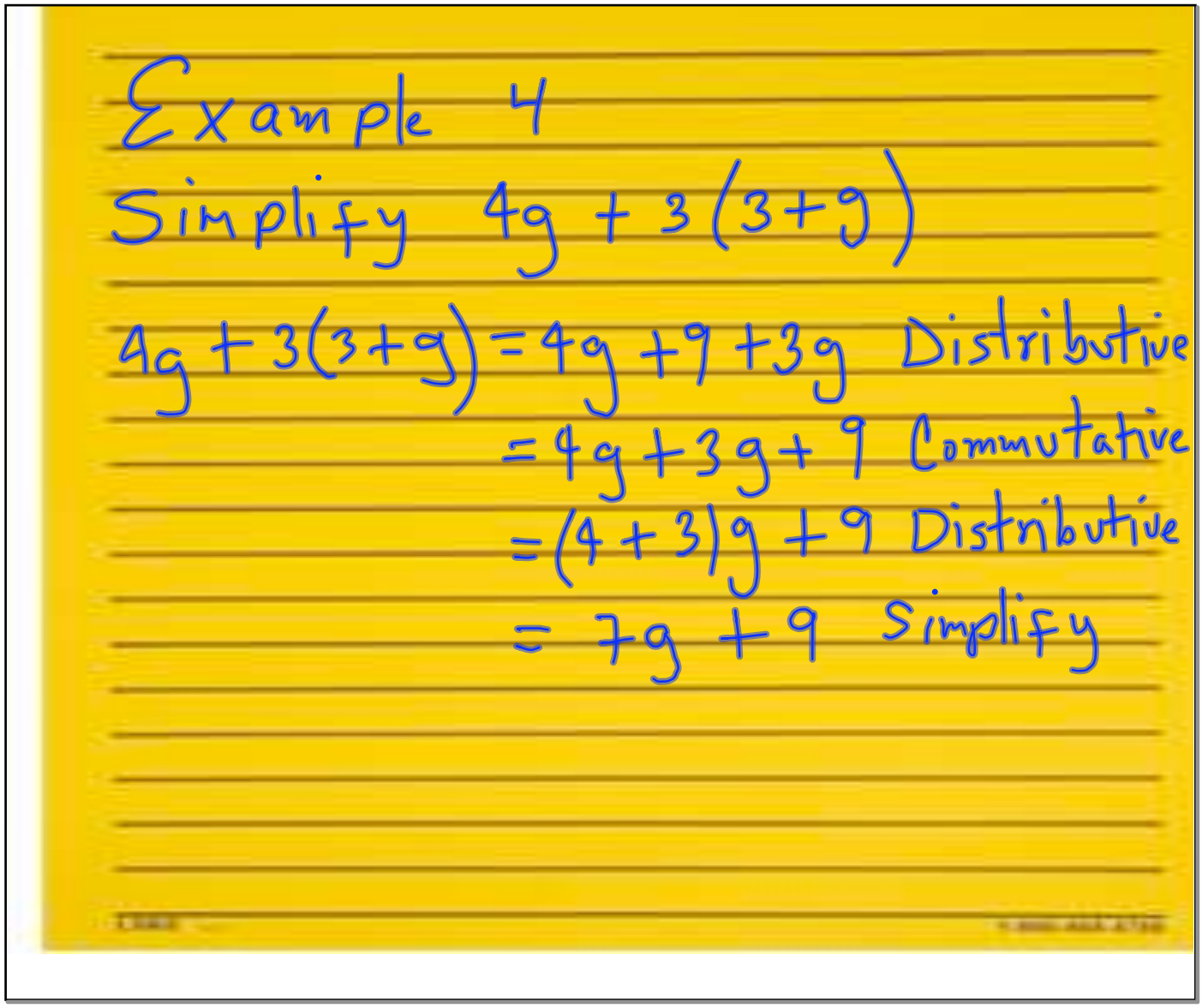
EXPLAIN: Explain example three in your own words. optional

GUIDED PRACTICE: (Work with a partner)
Do exercises 5, 6, and 7 on page 75. You may check the answer on the back of the book.

Jul 25-12:23 PM


Remberber that deductive reasoning is the procces of reasoning logically from given facts to a conclusion.
To make your logical reasoning in math use Properties, rules, and definitions.

Sep 14-9:42 PM


Example 4
Simplify 4g + 3(3+g)
4g + 3(3+g) = 4g + 9 + 3g Distributive
= 4g + 3g + 9 Commutative
= (4 + 3)g + 9 Distributive
= 7g + 9 Simplify

Sep 14-9:58 PM

Direct Instruction/ Modeling: *(the teacher demonstrates (Include differentiation and/or checking for understanding for above, at and below grade level students)* Time: (approx. 10 min)

LESSON 2 -3

QUESTION FOR EXAMPLE 4 ON PAGE 75 :
How is deductive reasoning possible?

READ:
• Read example 4 on page 75.

EXPLAIN: Explain example four in your own words.

GUIDED PRACTICE: (Work with a partner)
Do exercises 8, and 9 on page 75. You may check the answer on the back of the book.

Jul 25-12:23 PM

Independent Practice / Homework: *(include differentiation and/or checking for understanding for above, at and below grade level students/ what would you like students to know how do by tomorrow?)*

LESSON 2 -3

HOMEWORK PART 1 *PAGES 76 AND 77*

Exercises:

1-4, # 11-16, and # 39

Extension # 38

HOMEWORK PART 2

Exercises:

Exercises # 5-10, # 17-30, #36-37,

Extension: # 31-35

Jul 25-12:31 PM

Name:_____
Date:____/_____/____
period:_____

Assessment Post-instructional: *(How will you know all students have mastered the objective?) are you going to quiz them/or give them a quick write/ draw?*

Lesson Quiz 2-3

Name coefficients, like terms, and constants.

1. $4f - 2f + 3$
2. $z + 2y - 14$

Simplify each expression.

3. $3(a + c - 1) - 2c$
4. $4(4v) - 4(v - 9)$

Aug 25-11:03 PM

LESSON 2 -3

Name:_____
Date:____/_____/____
period:_____

CST Learning Target/ Culminating Task :

(refer to CST released questions)

38 **Which of the following is an example of an inequality?**

A $3n-6$

B $4n>9$

C $2=n-1$

D $5+0=5$

Jul 25-12:32 PM

LESSON 2 -3

Name:_____
Date:____/_____/____
period:_____

CST Learning Target/ Culminating Task :

(refer to CST released questions)

Go to: http://mathtv.com/

for more on combining like terms math tv videos: Click on simplifying expressions with variables and watch.

Jul 25-12:32 PM

Closure / Reflection: • Exit Card

Culminating Task

LESSON 2 -3

Copy and answer exercise 39 on page 77.

Read and copy the following paragraph:

To simplify a variable expression, replace it with an equivalent expression wit as few terms as possible.

Jul 25-12:30 PM

BEFORE THE LESSON

LESSON 2 -3

Plus and minus signs separate an expression into terms. This means that 2 + x + 8 has three terms. In contrast, xyz consists of just one term. Like terms can be combined because the variables in like terms are the same, although the numeric coefficients may be different. The terms 3a and -7a are like terms, even though the coefficients 3 and -7 are different.

Jul 31-12:53 PM

LESSON 2 -3

Materials Needed:

(*any material teacher and students will need)*

1 Sheet of notebook paper
1 pencil
1 text :
1 laptop and projector

Vocabulary:

(*what new words will they have to master today)*

- *term*
- *constant*
- *like terms*
- *coefficient*
- *simplify*
- *deductive reasoning*

Jul 25-12:35 PM

Lesson SIMPLIFYING EXPRESSIONS page 74 .

LESSON 2 -3

California Standard:

A.F.1.3 Simplify variable expressions; justify process.
A.F. 1.4 Use algebraic terms--constant, like terms, coefficient.
M.R. 2.4 Use deductive reasoning to test conjectures.

Jul 25-12:09 PM

End of lesson 2-3

Jul 25-1:26 PM