

Section 2.3
Simplifying Variable
Expressions

Goal: to simplify expressions by
using the properties of equality

$$7x - 5x + 3y + 10$$

\downarrow coefficient \downarrow term \downarrow constant

Like terms: *have the same variable*
 Ex: $7x, 5x$
 $3xy, -5xy$ } *Not like terms*
 ~~x, x^2~~

$$3x - 7 + 5 - 2x$$

Identify:

terms - $3x, -7, 5, -2x$

coefficients - $3, -2$

constants - $-7, 5$

like terms - $3x, -2x$; $-7, 5$

Identify the like terms:

$$(4x) + 4 + (7x) + 7$$

Simplifying an expression -
simplified if it contains no
grouping symbols and all like
terms are combined

Is it simplified?

$$-2x - 3(x + 1) \text{ No}$$

$$7y - 2y \text{ No}$$

Simplify:

$$-7b + 3 + b - 10$$

$$(-7b + b) + (3 - 10) = -6b - 7$$

$$3(x - 5) - 2(x + 1)$$

$$3x(-15) - 2x(-2) = x - 17$$

$$4c - 9 + 5(6 + c)$$

$$4c(-9) + 30 + 5c = 9c + 21$$

$$15x - (10 + 15x)$$

$$15x - 10 - 15x = -10$$

Mary charges \$16 per hour for piano lessons and \$8 per hour for the time to drive to and from the student's home.

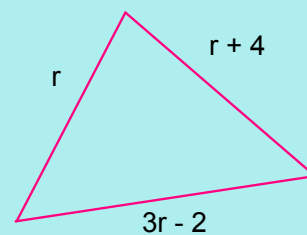
If Mary give a lesson for 2 hours and the drive to and from the student's home was 1/2 hour, how much will Mary charge? Write the expression and simplify.

$$\$36$$

$$16L + 8d$$

$$16 \cdot 2 + 8 \cdot \frac{1}{2}$$

$$32 + 4$$



Write the expression for the perimeter and simplify.

Hwk: pg 80 - 82

#1, 8, 9, 12,

16 - 30 evens, 33 - 37 all