Simplifying Algebraic Expression Notes

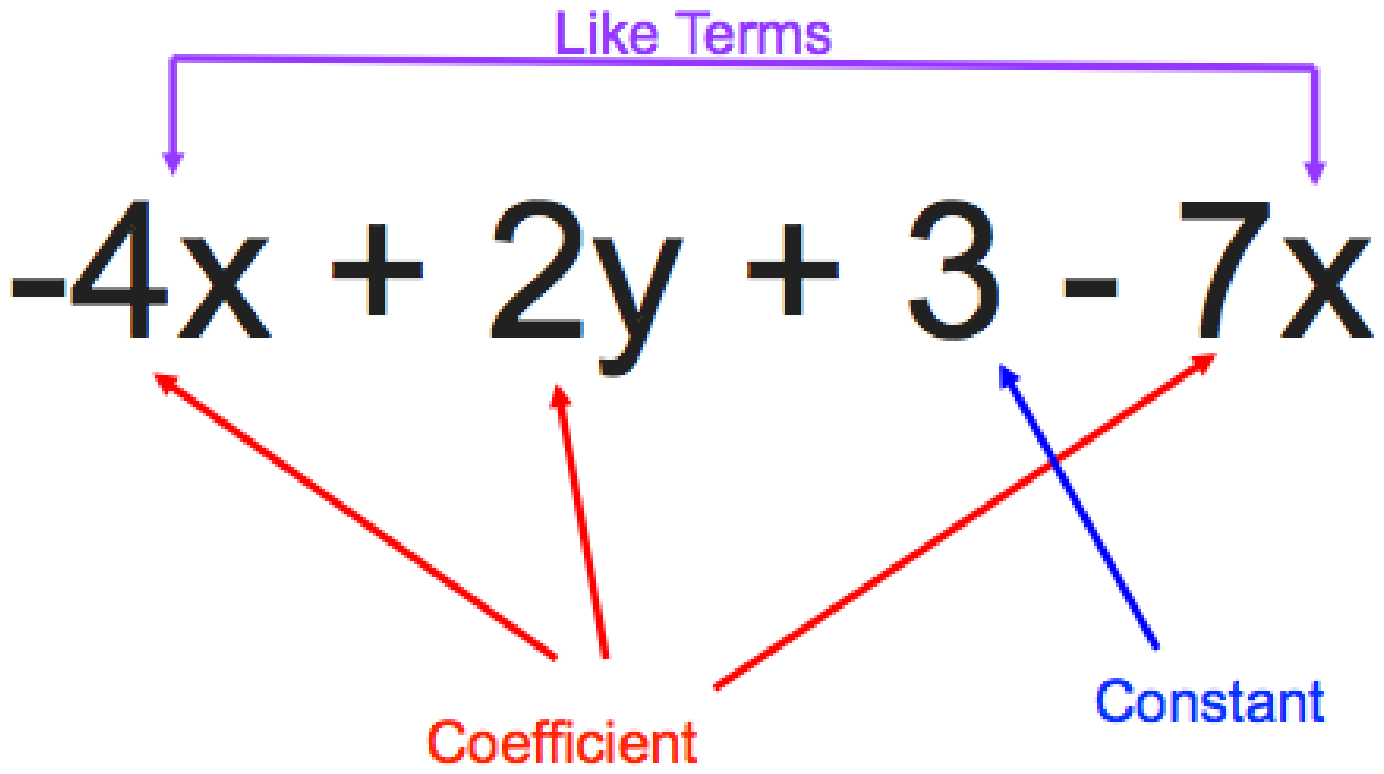
Vocabulary

Term: each part of an algebraic expression separated by addition/subtraction

Like Terms: terms that contain the same variable to the same power

Coefficient: the number part of the term that contains a variable

Constant: a term without a variable



This expression contains four terms. It is helpful to change subtraction into plus negative when identifying the parts.

An expression in simplest form has

1) no like terms

2) no parentheses

- you must combine all like terms and use the distributive property when simplifying an expression
- watch out for the hidden "1" infront of a variable or a parenthesis
- consider changing subtraction to "plus a negative" to avoid errors

Simplify each expression.

1) $y - 2(x - 3y)$

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

$1y + -2x + 6y$

$-2x + 7y$

or

$7y + -2x$

or

$7y - 2x$

2) $-3(m - 1) + 4m$

$-3(1m + -1) + 4m$

$-3m + 3 + 4m$

$1m + 3$

Simplify each expression.

3) $-3n(4n+6)$

$-12n^2 + -18n$

$-3 \cdot 4 \cdot n \cdot n$

4) $-w(-6-w)$

$-1w(-6 + -1w)$

$6w + 1w^2$

Simplify each expression.

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

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

$-2 + -1x + -5$

$-1x + -7$

6) $-2x(-5x + 4) + 8x - 7$

$10x^2 + -8x$

$+8x - 7$

$10x^2 + -7$

Write a expression in simplest form that represents the total amount.

7) Becky scored 'g' goals this season. Samantha scored 4 times as many as Becky. Tina scored 3 fewer goals than Becky.

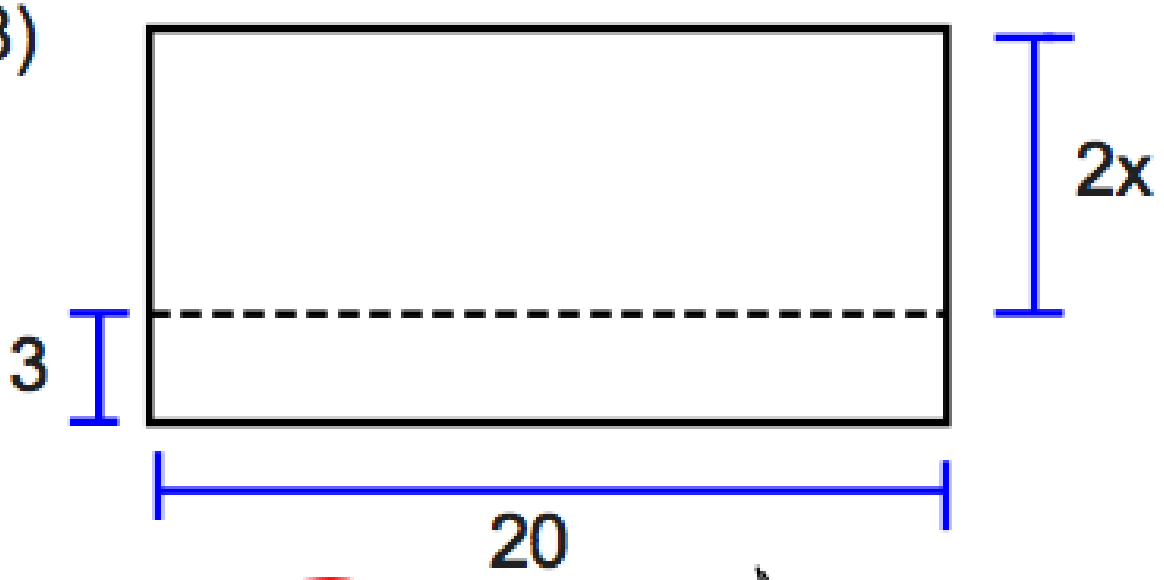
Becky + Samantha + Tina

$g + 4g + g - 3$

$6g - 3$

Write a expression in simplest form that models the area of the shape.

8)



$(2x+3)\,20$

$40x+60$

$2x(20) + 3(20)$

$40x+60$

Either method works