Factoring Linear Expressions

Vocabulary

Monomial - an expression that has a number, variable, or a product of number(s) and variable(s)

Examples: 2, a, 2a, 2ab

Factor - a number or quantity that is multiplied to make another number.

Examples: 2 and 3 are factors of 6.

2 and n are the factors of 2n

$8x + 4$	$4(2x + 1)$
Standard Form	Factored Form

Factoring Linear Expressions

Step 1: Write the factorization of each term.

Step 2: Circle the common factors. This is the GCF.

Step 3: Rewrite in factored form as a product of the GCF and the sum/difference of its remaining factors.

Note: if there is not a GCF, the expression cannot be factored.

Find the GCF of each pair, then write in factored form.

1) 12 + 28c

$12: 3 \times 2 \times 2$

$28c: 7 \times 2 \times 2 \times c$

$4(3 + 7c)$

Find the GCF of each pair, then write in factored form.

2) 56g - 84gh

$56g : 7 \times 2 \times 2 \times 2 \times g$

$84gh : 7 \times 3 \times 2 \times 2 \times g \times h$

$28g(2 - 3h)$

84
42 2
21 2
3 7

Factor each expression.

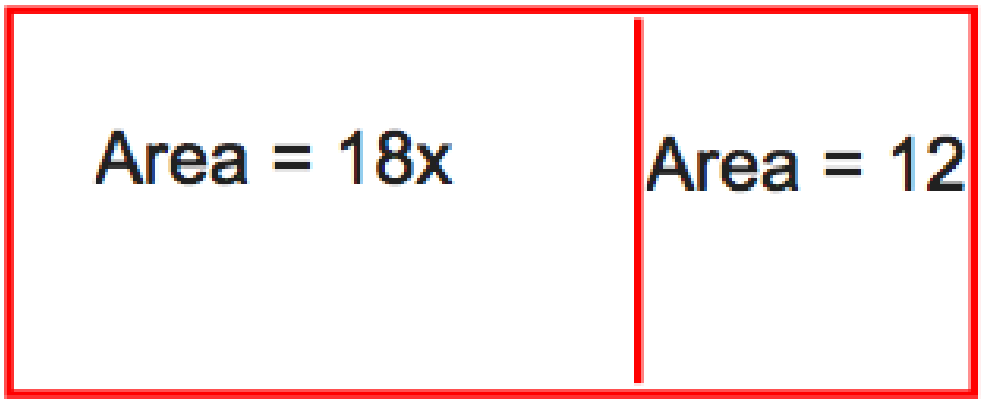
3) $14x - 16$

$2(7x - 8)$

4) $13x + 21$ cannot be factored

Write an expression in factored form to represent the area of the total rectangle.

5)



$18: 3 \times 3 \times 2 \times x$

$12: 3 \times 2 \times 2$

$18x + 12$ standard form

$6(3x + 2)$