

NOVEMBER 20, 2014

STARTER

5TH
6TH

Simplify each expression.

$$\begin{aligned} 1) \quad & -5(3x + 5) + 2 \\ & = -15x + 25 + 2 \\ & = -15x + 27 \end{aligned}$$

$$\begin{aligned} 2) \quad & 3(1 + 5r) - 4r \\ & = 15r + 3 - 4r \\ & = 11r + 3 \end{aligned}$$

$$\begin{aligned} 3) \quad & -4 + 3(2x + 3) \\ & = -4 + 6x + 9 \\ & = 6x + 5 \end{aligned}$$

$$\textcircled{12} \quad -1.4n + 0.5(n - 0.5)$$

$$= \underline{-1.4n} + \underline{0.5n} - 0.25$$

$$\begin{array}{r} -1.4 \\ +0.5 \\ \hline -0.9 \end{array} = -0.9n - 0.25$$

$$\textcircled{10} \quad 1.53 + 0.4(m - 1.3)$$

$$= \underline{1.53} + 0.4m - \underline{0.52}$$

$$= 0.4m + 1.01$$

$$\begin{array}{r} 1.53 \\ + 0.4m \\ - 0.52 \\ \hline 1.01 + 0.4m \end{array}$$

11/20 - Factoring Out Common Factors

What are **FACTORS**?

Numbers that you multiply together to get another number.

A number that divides evenly into another number.

Name all the factors of the given numbers:

12

1
2
3
4
5
6
7
8
9
10
11
12

1, 2, 3, 4, 6, 12

30

1 30
2 15
3 10
5 6

48

48 12
1 3
8 24
6 4
2 16

Random is the hardest

What are **Common Factors**

Numbers that divide into 2 others

Factors that are the same for both #'s

Find the common factors of the given number pairs:

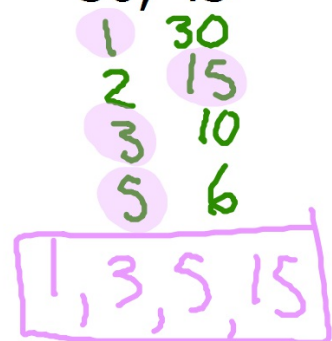
12, 18



24, 40



30, 45



"Factor out the common factor" assumes you use the LARGEST one that goes into both numbers.

Find the Greatest Common Factor (GCF) for each set of numbers:

32, 24

8

18, 27

9

48, 36

12

Rewrite each by factoring out the GCF.

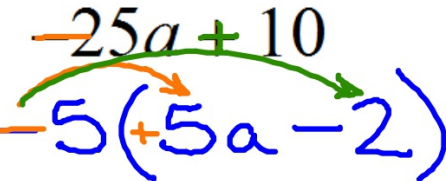
GCF
of
3 and 9
= 3

$$3b + 9 = 3(b + 3)$$

$$35x + 14 = 7(5x + 2)$$

$$24k - 20 = 4(6k - 5)$$

$$70x + 20 = 10(7x + 2)$$

$$= -5(5a - 2)$$


$$-49x + 70$$

$$= -7(7x - 10)$$

$$-4n - 6$$

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

$$= -4(2k-9)$$

$$-30n - 30$$

$$= -30(n+1)$$

$$-30(n+1)$$

$$60 - 54n$$

$$= -54n + 60$$

$$= -6(9n-10)$$

$$-6 - 3n$$

$$= -3n - 6$$

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

$$5k - 8$$

$$= \cancel{1(5k-8)}$$

$$= 5k - 8$$

$$6 + 5c$$

$$5c + 6$$

$$-4 - 3b$$

$$= -3b - 4$$

$$= -1(3b + 4)$$

$$1) -90a + 27 \\ -9(10a - 3)$$

HOMework

Buff WS4

DUE Today