

# 1-1 Greatest Common Factors (GCF)

## Objectives:

1-1a: I can factor using a greatest common factor.

1-1b: I can solve multi-step equations.

1-1c: I can solve equations by factoring.

Nov 24-9:07 PM

Find the greatest common factor (GCF) of the terms

$$4x, 12 \qquad 6x^3, 12x^2, 15x$$

$$4x^3y^4, 8x^2y^3, 12xy^2$$

Dec 6-9:31 AM

You Try

Find the greatest common factor (GCF) of the terms

$$3x^3y^5, 9x^2y^3, 12xy^4$$

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Factor out the GCF

$$4a^2b^2 - 10ab^3 + 18a^3b^4$$

Multiply the GCF back into the expression.

What did you notice?

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You Try

Factor out the GCF

$$6y^3 - 14y^2 + 10y$$

Check by multiplying the GCF back into the expression.

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Factor out the GCF

$$4x^3 + 6x^2 + 2x$$

$$3x^4 + 3x$$

Dec 2-1:47 PM

What happens if pull out a negative GCF compared to a positive GCF?

Factor out the GCF.

$$-2b^3 + 10b^2 + 8b$$

$$-16x^2 + 4x$$

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You Try

Factor out the GCF

$$-5y^2 + 10y$$

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Factor out the Greatest Common Binomial Factor

$$4x(x - 3) + 5(x - 3)$$

$$3y^2(y - 1) - 4(y - 1)$$

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You Try

Factor out the Greatest Common Binomial Factor

$$4a(a - 3) + 3(a - 3)$$

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## Solving by Factoring

$$8x^2 + 4x = 0$$

$$3a^3 = 9a^2$$

Aug 14-11:00 AM

$$-2x^2 + 4x = 0$$

$$2n^2 = n$$

May 31-12:24 PM

## Solving Multi-Step Equations

$$3k - 7 = 5k + 11$$

$$-5g - 7 = 2g - 4$$

May 31-12:26 PM

$$7x - 10 = 2(x - 4)$$

$$7(y + 3) = 2y - 7$$

May 31-12:28 PM

$$\frac{1}{2}x + 5 = 12$$

$$7 - \frac{3}{7}x = 11$$

May 31-12:29 PM