Algebra I Lesson #2 Unit 12 Class Worksheet #2 For Worksheets #2 & #3

The Factoring Method

Solving Second Degree Equations With 1 Variable The Factoring Method 1. $2x^2 = 13x + 7$

The Factoring Method

1.
$$2x^2 = 13x + 7$$

The Factoring Method

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 $2x^2$

The Factoring Method

1.
$$2x^2 = 13x + 7$$

 $2x^{2} -$

The Factoring Method

1.
$$2x^2 = 13x + 7$$

 $2x^2 - 13x$

The Factoring Method

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 $2x^2 - 13x -$

The Factoring Method

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$$2x^2 = 13x + 7$$

 $2x^2 - 13x - 7$

The Factoring Method

1.
$$2x^2 = 13x + 7$$

$$2x^2 - 13x - 7 = 0$$

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(2x)(x) = 0

The Factoring Method

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$$2x^2 = 13x + 7$$

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(2x+1)(x-7)=0

The Factoring Method

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1. $2x^2 = 13x + 7$ $2x^2 - 13x - 7 = 0$ (2x + 1)(x - 7) = 02x + 1 =

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Solving Second Degree Equations With 1 Variable The Factoring Method 2. $6x^2 + 13x = 5$

The Factoring Method

2.
$$6x^2 + 13x = 5$$

Solving Second Degree Equations With 1 Variable The Factoring Method 2. $6x^2 + 13x = 5$ **6x**²

Solving Second Degree Equations With 1 Variable The Factoring Method 2. $6x^2 + 13x = 5$ $6x^2 +$



Solving Second Degree Equations With 1 Variable The Factoring Method 2. $6x^2 + 13x = 5$ $6x^2 + 13x -$

Solving Second Degree Equations With 1 Variable The Factoring Method 2. $6x^2 + 13x = 5$ $6x^2 + 13x - 5$
The Factoring Method

2.
$$6x^2 + 13x = 5$$

$$6x^2 + 13x - 5 = 0$$

$$2. \quad 6x^2 + 13x = 5$$

$$6x^2 + 13x - 5 = 0$$

The Factoring Method

$$2. \quad 6x^2 + 13x = 5$$

$$6x^2 + 13x - 5 = 0$$

$$(3x)(2x) = 0$$

The Factoring Method

$$2. \quad 6x^2 + 13x = 5$$

$$6x^2 + 13x - 5 = 0$$

$$(3x-1)(2x+5)=0$$

The Factoring Method

$$2. \quad 6x^2 + 13x = 5$$

$$6x^2 + 13x - 5 = 0$$

(3x-1)(2x+5)=0

2. $6x^2 + 13x = 5$ $6x^2 + 13x - 5 = 0$ (3x - 1)(2x + 5) = 03x - 1 =

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$$6x^{2} + 13x = 5$$

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The Factoring Method

3.
$$x^2 = 9$$

The Factoring Method

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The Factoring Method

3.
$$x^2 = 9$$

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The Factoring Method

3.
$$x^2 = 9$$



The Factoring Method

3.
$$x^2 = 9$$

$$x^2 - 9$$

The Factoring Method

3.
$$x^2 = 9$$

$$\mathbf{x}^2 - \mathbf{9} = \mathbf{0}$$

The Factoring Method

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The Factoring Method

3.
$$x^2 = 9$$

 $x^2 - 9 = 0$
(x)(x) = 0

The Factoring Method

3.
$$x^2 = 9$$

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 $(x + 3)(x - 3) = 0$

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 $x + 3 = 0$ or

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The Factoring Method

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$$x^2 = 9$$

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The Factoring Method

3.
$$x^2 = 9$$

 $x^2 - 9 = 0$
 $(x + 3)(x - 3) = 0$
 $x + 3 = 0$ or $x - 3 = 0$
 $x = -3$ or $x = 3$

The Factoring Method

4.
$$x^2 = 9x$$

The Factoring Method

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The Factoring Method

4.
$$x^2 = 9x$$

 x^2

The Factoring Method

4.
$$x^2 = 9x$$

 $x^2 -$

The Factoring Method

4.
$$x^2 = 9x$$

 $x^2 - 9x$

The Factoring Method

$$4. \quad x^2 = 9x$$

$$\mathbf{x}^2 - \mathbf{9}\mathbf{x} = \mathbf{0}$$

The Factoring Method

$$4. \quad \mathbf{x}^2 = \mathbf{9}\mathbf{x}$$

$$\mathbf{x}^2 - \mathbf{9}\mathbf{x} = \mathbf{0}$$

The Factoring Method

4.
$$x^2 = 9x$$

 $x^2 - 9x = 0$
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The Factoring Method

4.
$$x^2 = 9x$$

 $x^2 - 9x = 0$
 $x(x - 9)$

The Factoring Method

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$$x^2 = 9x$$

 $x^2 - 9x = 0$
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The Factoring Method

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The Factoring Method

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The Factoring Method

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$$x^2 = 9x$$

 $x^2 - 9x = 0$
 $x(x - 9) = 0$
 $x = 0 \text{ or } x - 9 = 0$
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The Factoring Method

5.
$$x^2 + 5 = 6x$$

The Factoring Method

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The Factoring Method



The Factoring Method



The Factoring Method

5.
$$x^2 + 5 = 6x$$

 $\mathbf{x}^2 - \mathbf{6}\mathbf{x}$

The Factoring Method

5.
$$x^2 + 5 = 6x$$

 $x^2 - 6x +$

The Factoring Method

5.
$$x^2 + 5 = 6x$$

 $\mathbf{x}^2 - \mathbf{6}\mathbf{x} + \mathbf{5}$

The Factoring Method

5.
$$x^2 + 5 = 6x$$

$$\mathbf{x}^2 - \mathbf{6}\mathbf{x} + \mathbf{5} = \mathbf{0}$$
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$$x^2 + 5 = 6x$$

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$$x^2 + 5 = 6x$$

 $x^2 - 6x + 5 = 0$
 $(x)(x) = 0$

The Factoring Method

5.
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 $x^2 - 6x + 5 = 0$
 $(x - 1)(x - 5) = 0$

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 $x - 1 = 0$

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$$x^{2} + 5 = 6x$$

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 $x - 1 = 0$ or $x - 5 = 0$
 $x = x = 0$

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 $x - 1 = 0$ or $x - 5 = 0$
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Solving Second Degree Equations With 1 Variable The Factoring Method 6. $8x^2 + 15 = 26x$

The Factoring Method

6.
$$8x^2 + 15 = 26x$$

Solving Second Degree Equations With 1 Variable The Factoring Method 6. $8x^2 + 15 = 26x$ $8x^2$

The Factoring Method

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Solving Second Degree Equations With 1 Variable The Factoring Method 6. $8x^2 + 15 = 26x$ $8x^2 - 26x$

Solving Second Degree Equations With 1 Variable The Factoring Method 6. $8x^2 + 15 = 26x$ $8x^2 - 26x +$

Solving Second Degree Equations With 1 Variable The Factoring Method 6. $8x^2 + 15 = 26x$ $8x^2 - 26x + 15$

The Factoring Method

6.
$$8x^2 + 15 = 26x$$

$$8x^2 - 26x + 15 = 0$$

The Factoring Method

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$$8x^2 + 15 = 26x$$

$$8x^2 - 26x + 15 = 0$$

The Factoring Method

$$6. \quad 8x^2 + 15 = 26x$$

- $8x^2 26x + 15 = 0$
- (4x)(2x) = 0

The Factoring Method

6.
$$8x^2 + 15 = 26x$$

- $8x^2 26x + 15 = 0$
- (4x-3)(2x-5)=0

The Factoring Method

$$6. \quad 8x^2 + 15 = 26x$$

- $8x^2 26x + 15 = 0$
- (4x-3)(2x-5)=0

The Factoring Method

6.
$$8x^2 + 15 = 26x$$

$$8x^2 - 26x + 15 = 0$$

$$(4x-3)(2x-5)=0$$

$$4x - 3 =$$

The Factoring Method

6.
$$8x^2 + 15 = 26x$$

$$8x^2 - 26x + 15 = 0$$

$$(4x-3)(2x-5)=0$$

$$4x - 3 = 0$$

The Factoring Method

6.
$$8x^2 + 15 = 26x$$

$$8x^2 - 26x + 15 = 0$$

$$(4x - 3)(2x - 5) = 0$$

$$4x - 3 = 0$$
 or

6.
$$8x^2 + 15 = 26x$$

- $8x^2 26x + 15 = 0$
- (4x-3)(2x-5)=0
- 4x 3 = 0 or 2x 5 =

6.
$$8x^2 + 15 = 26x$$

- $8x^2 26x + 15 = 0$
- (4x-3)(2x-5) = 0
- 4x 3 = 0 or 2x 5 = 0

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$$8x^2 + 15 = 26x$$

- $8x^2 26x + 15 = 0$
- (4x 3)(2x 5) = 0
- 4x 3 = 0 or 2x 5 = 0

6.
$$8x^{2} + 15 = 26x$$

 $8x^{2} - 26x + 15 = 0$
 $(4x - 3)(2x - 5) = 0$
 $4x - 3 = 0$ or $2x - 5 = 0$
 $4x = 100$

6.
$$8x^{2} + 15 = 26x$$

 $8x^{2} - 26x + 15 = 0$
 $(4x - 3)(2x - 5) = 0$
 $4x - 3 = 0$ or $2x - 5 = 0$
 $4x = 3$
6.
$$8x^{2} + 15 = 26x$$

 $8x^{2} - 26x + 15 = 0$
 $(4x - 3)(2x - 5) = 0$
 $4x - 3 = 0$ or $2x - 5 = 0$
 $4x = 3$
 $x = 3$

6. $8x^{2} + 15 = 26x$ $8x^{2} - 26x + 15 = 0$ (4x - 3)(2x - 5) = 0 4x - 3 = 0 or 2x - 5 = 0 4x = 3x = 3/4

- 6. $8x^2 + 15 = 26x$ $8x^2 - 26x + 15 = 0$ (4x - 3)(2x - 5) = 0 4x - 3 = 0 or 2x - 5 = 0
 - 4x = 3 2x =
- x = 3/4

6.
$$8x^2 + 15 = 26x$$

- $8x^2 26x + 15 = 0$
- (4x-3)(2x-5)=0
- 4x 3 = 0 or 2x 5 = 0

$$4x = 3 \qquad 2x = 5$$

x = 3/4

6.
$$8x^2 + 15 = 26x$$

- $8x^2 26x + 15 = 0$
- (4x-3)(2x-5)=0
- 4x 3 = 0 or 2x 5 = 0

$$4x = 3 \qquad 2x = 5$$

x = 3/4 or

- 6. $8x^2 + 15 = 26x$
 - $8x^2 26x + 15 = 0$
 - (4x-3)(2x-5)=0
- 4x 3 = 0 or 2x 5 = 0

$$4\mathbf{x} = 3 \qquad 2\mathbf{x} = 5$$

$$x = 3/4$$
 or $x =$

- 6. $8x^2 + 15 = 26x$
 - $8x^2 26x + 15 = 0$
 - (4x-3)(2x-5)=0
- 4x 3 = 0 or 2x 5 = 0

$$4x = 3 \qquad 2x = 5$$

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 or $x = 5/2$

- 6. $8x^2 + 15 = 26x$
 - $8x^2 26x + 15 = 0$
 - (4x-3)(2x-5)=0
- 4x 3 = 0 or 2x 5 = 0

$$4x = 3 \qquad 2x = 5$$

x = 3/4 or x = 5/2









(3x)(5x) = 0

 $15x^{2} + x - 2 = 0$ (3x - 1)(5x + 2) = 0 3x - 1 =

3x - 1 = 0

(3x-1)(5x+2) = 0

3x - 1 = 0 or

3x - 1 = 0 or 5x + 2 =

Solving Second Degree Equations With 1 Variable The Factoring Method 7. $15x^2 + x = 2$ $15x^2 + x - 2 = 0$ (3x - 1)(5x + 2) = 0 3x - 1 = 0 or 5x + 2 = 03x = 1000

Solving Second Degree Equations With 1 Variable The Factoring Method 7. $15x^2 + x = 2$ $15x^2 + x - 2 = 0$ (3x - 1)(5x + 2) = 0 3x - 1 = 0 or 5x + 2 = 03x = 1

Solving Second Degree Equations With 1 Variable The Factoring Method 7. $15x^2 + x = 2$ $15x^2 + x - 2 = 0$ (3x - 1)(5x + 2) = 0 3x - 1 = 0 or 5x + 2 = 03x = 1

Step 1: Write the equation in <u>standard form</u>: ax² + bx + c = 0 Step 2: Write the equation in 'factored form'. Step 3: Apply the 'zero property of multiplication. Step 4: Solve each equation.

 $\mathbf{x} =$

3x = 1

x = 1/3

3x - 1 = 0 or 5x + 2 = 0

3x = 1 5x =

x = 1/3

$$3x - 1 = 0$$
 or $5x + 2 = 0$
 $3x = 1$ $5x = -2$
 $x = 1/3$
the equation in standard form: a

3x - 1 = 0 or 5x + 2 = 0

3x = 1 5x = -2

x = 1/3 or

3x - 1 = 0 or 5x + 2 = 0

3x = 1 5x = -2

x = 1/3 or x =

3x - 1 = 0 or 5x + 2 = 0

3x = 1 5x = -2

x = 1/3 or x = -2/5

3x - 1 = 0 or 5x + 2 = 0

3x = 1 5x = -2

x = 1/3 or x = -2/5
The Factoring Method

8.
$$8x(2x-1) = 15$$

The Factoring Method

8.
$$8x(2x-1) = 15$$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 10x^2 - 1$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x =$

The Factoring Method

8.
$$8x(2x-1) = 15$$

$$16x^2 - 8x = 15$$

Solving Second Degree Equations With 1 Variable The Factoring Method 8. 8x(2x-1) = 15 $16x^2 - 8x = 15$ $16x^2$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x = 15$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x = 15$

$$16x^2 - 8x -$$

The Factoring Method

8.
$$8x(2x-1) = 15$$

$$16x^2 - 8x = 15$$

$$16x^2 - 8x - 15$$

The Factoring Method

8.
$$8x(2x-1) = 15$$

$$16x^2 - 8x = 15$$

$$16x^2 - 8x - 15 = 0$$

The Factoring Method

8.
$$8x(2x-1) = 15$$

$$16x^2 - 8x = 15$$

 $16x^2 - 8x - 15 = 0$

The Factoring Method

8.
$$8x(2x-1) = 15$$

$$16x^2 - 8x = 15$$

- $16x^2 8x 15 = 0$
- (4x)(4x) = 0

The Factoring Method

8.
$$8x(2x-1) = 15$$

$$16x^2 - 8x = 15$$

 $16x^2 - 8x - 15 = 0$

$$(4x-5)(4x+3) = 0$$

The Factoring Method

8.
$$8x(2x-1) = 15$$

$$16x^2 - 8x = 15$$

 $16x^2 - 8x - 15 = 0$

$$(4x-5)(4x+3) = 0$$

The Factoring Method

8.
$$8x(2x - 1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x - 5)(4x + 3) = 0$
 $4x - 5 =$

The Factoring Method

8.
$$8x(2x - 1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x - 5)(4x + 3) = 0$
 $4x - 5 = 0$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x - 5)(4x + 3) = 0$
 $4x - 5 = 0$ or

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x-5)(4x+3) = 0$
 $4x-5 = 0$ or $4x+3 = 15$

The Factoring Method

8.
$$8x(2x - 1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x - 5)(4x + 3) = 0$
 $4x - 5 = 0$ or $4x + 3 = 0$

The Factoring Method

8.
$$8x(2x - 1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x - 5)(4x + 3) = 0$
 $4x - 5 = 0$ or $4x + 3 = 0$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x-5)(4x+3) = 0$
 $4x-5=0$ or $4x+3=0$
 $4x = 100$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x-5)(4x+3) = 0$
 $4x-5=0$ or $4x+3=0$
 $4x = 5$

The Factoring Method

8.
$$8x(2x - 1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x - 5)(4x + 3) = 0$
 $4x - 5 = 0$ or $4x + 3 = 0$
 $4x = 5$
 $x = 15$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x-5)(4x+3) = 0$
 $4x-5=0$ or $4x+3=0$
 $4x = 5$
 $x = 5/4$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x-5)(4x+3) = 0$
 $4x-5=0$ or $4x+3=0$
 $4x = 5$ $4x = x = 5/4$

The Factoring Method

8.
$$8x(2x - 1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x - 5)(4x + 3) = 0$
 $4x - 5 = 0$ or $4x + 3 = 0$
 $4x = 5$ $4x = -3$
 $x = 5/4$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x-5)(4x+3) = 0$
 $4x - 5 = 0$ or $4x + 3 = 0$
 $4x = 5$ $4x = -3$
 $x = 5/4$ or

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x-5)(4x+3) = 0$
 $4x-5=0 \text{ or } 4x+3=0$
 $4x = 5$
 $4x = -3$
 $x = 5/4 \text{ or } x = -3$

The Factoring Method

8.
$$8x(2x - 1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x - 5)(4x + 3) = 0$
 $4x - 5 = 0$ or $4x + 3 = 0$
 $4x = 5$ $4x = -3$
 $x = 5/4$ or $x = -3/4$

The Factoring Method

8.
$$8x(2x-1) = 15$$

 $16x^2 - 8x = 15$
 $16x^2 - 8x - 15 = 0$
 $(4x-5)(4x+3) = 0$
 $4x-5=0$ or $4x+3=0$
 $4x = 5$ $4x = -3$
 $x = 5/4$ or $x = -3/4$

The Factoring Method

9.
$$x^2 + 7x - 3 = 3(2x - 1)$$

The Factoring Method

9.
$$x^2 + 7x - 3 = 3(2x - 1)$$

The Factoring Method

9.
$$x^2 + 7x - 3 = 3(2x - 1)$$

 $x^2 + 7x - 3 =$

The Factoring Method

9.
$$x^2 + 7x - 3 = 3(2x - 1)$$

$$\mathbf{x}^2 + 7\mathbf{x} - 3 = 6\mathbf{x}$$
The Factoring Method

9.
$$x^2 + 7x - 3 = 3(2x - 1)$$

The Factoring Method

9.
$$x^2 + 7x - 3 = 3(2x - 1)$$

$$x^2 + 7x - 3 = 6x - 3$$

The Factoring Method

9.
$$x^2 + 7x - 3 = 3(2x - 1)$$

$$x^2 + 7x - 3 = 6x - 3$$

 \mathbf{X}^2

The Factoring Method

9.
$$x^2 + 7x - 3 = 3(2x - 1)$$

$$x^2 + 7x - 3 = 6x - 3$$

 $x^{2} +$

The Factoring Method

9.
$$x^2 + 7x - 3 = 3(2x - 1)$$

$$x^2 + 7x - 3 = 6x - 3$$
$$x^2 + x$$

The Factoring Method

9.
$$x^2 + 7x - 3 = 3(2x - 1)$$

$$x^{2} + 7x - 3 = 6x - 3$$

 $x^{2} + x = 0$

The Factoring Method

9.
$$x^2 + 7x - 3 = 3(2x - 1)$$

$$x^{2} + 7x - 3 = 6x - 3$$

 $x^{2} + x = 0$

The Factoring Method

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
x(

The Factoring Method

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1)$

The Factoring Method

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1) = 0$

9. $x^{2} + 7x - 3 = 3(2x - 1)$ $x^{2} + 7x - 3 = 6x - 3$ $x^{2} + x = 0$ x(x + 1) = 0

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1) = 0$
 $x =$

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1) = 0$
 $x = 0$

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1) = 0$
 $x = 0$ or

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1) = 0$
 $x = 0$ or $x + 1 =$

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1) = 0$
 $x = 0$ or $x + 1 = 0$

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1) = 0$
 $x = 0$ or $x + 1 = 0$

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1) = 0$
 $x = 0$ or $x + 1 = 0$
 $x = 0$

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1) = 0$
 $x = 0$ or $x + 1 = 0$
 $x = 0$ or

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1) = 0$
 $x = 0$ or $x + 1 = 0$
 $x = 0$ or $x = 1$

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1) = 0$
 $x = 0$ or $x + 1 = 0$
 $x = 0$ or $x = -1$

9.
$$x^{2} + 7x - 3 = 3(2x - 1)$$

 $x^{2} + 7x - 3 = 6x - 3$
 $x^{2} + x = 0$
 $x(x + 1) = 0$
 $x = 0$ or $x + 1 = 0$
 $x = 0$ or $x = -1$

The Factoring Method

10.
$$4x^2 + 5x + 1 = 5(x + 2)$$



The Factoring Method

10.
$$4x^2 + 5x + 1 = 5(x + 2)$$

Solving Second Degree Equations With 1 Variable The Factoring Method 10. $4x^2 + 5x + 1 = 5(x + 2)$ $4x^2 + 5x + 1 =$

Solving Second Degree Equations With 1 Variable The Factoring Method 10. $4x^2 + 5x + 1 = 5(x + 2)$ $4x^2 + 5x + 1 = 5x$

Solving Second Degree Equations With 1 Variable The Factoring Method 10. $4x^2 + 5x + 1 = 5(x + 2)$ $4x^2 + 5x + 1 = 5x +$

Solving Second Degree Equations With 1 Variable The Factoring Method 10. $4x^2 + 5x + 1 = 5(x + 2)$ $4x^2 + 5x + 1 = 5x + 10$









Solving Second Degree Equations With 1 Variable The Factoring Method 10. $4x^2 + 5x + 1 = 5(x + 2)$ $4x^2 + 5x + 1 = 5x + 10$ $4x^2 - 9 = 0$ (2x)(2x) = 0

Solving Second Degree Equations With 1 Variable The Factoring Method 10. $4x^2 + 5x + 1 = 5(x + 2)$ $4x^2 + 5x + 1 = 5x + 10$ $4x^2 - 9 = 0$ (2x + 3)(2x - 3) = 0

Solving Second Degree Equations With 1 Variable The Factoring Method 10. $4x^2 + 5x + 1 = 5(x + 2)$ $4x^2 + 5x + 1 = 5x + 10$ $4x^2 - 9 = 0$ (2x + 3)(2x - 3) = 0

Solving Second Degree Equations With 1 Variable The Factoring Method 10. $4x^2 + 5x + 1 = 5(x + 2)$ $4x^2 + 5x + 1 = 5x + 10$ $4x^2 - 9 = 0$ (2x + 3)(2x - 3) = 0

2x + 3 =
Solving Second Degree Equations With 1 Variable The Factoring Method 10. $4x^2 + 5x + 1 = 5(x + 2)$ $4x^2 + 5x + 1 = 5x + 10$ $4x^2 - 9 = 0$ (2x + 3)(2x - 3) = 0

2x + 3 = 0

 $4x^2 - 9 = 0$

(2x+3)(2x-3)=0

2x + 3 = 0 or

10.
$$4x^{2} + 5x + 1 = 5(x + 2)$$

 $4x^{2} + 5x + 1 = 5x + 10$
 $4x^{2} - 9 = 0$
 $(2x + 3)(2x - 3) = 0$
 $2x + 3 = 0$ or $2x - 3 = 3$

10.
$$4x^{2} + 5x + 1 = 5(x + 2)$$

 $4x^{2} + 5x + 1 = 5x + 10$
 $4x^{2} - 9 = 0$
 $(2x + 3)(2x - 3) = 0$
 $2x + 3 = 0$ or $2x - 3 = 0$

 $4x^2 - 9 = 0$

(2x+3)(2x-3)=0

 $2x + 3 = 0 \quad \text{or} \quad 2x - 3 = 0$ Step 1: Write the equation in <u>standard form</u>: $ax^2 + bx + c = 0$

Step 2: Write the equation in 'factored form'. Step 3: Apply the 'zero property of multiplication. Step 4: Solve each equation.

10.
$$4x^{2} + 5x + 1 = 5(x + 2)$$

 $4x^{2} + 5x + 1 = 5x + 10$
 $4x^{2} - 9 = 0$
 $(2x + 3)(2x - 3) = 0$
 $2x + 3 = 0$ or $2x - 3 = 0$
 $2x = 100$

$$4x^{2} + 5x + 1 = 5x + 10$$

$$4x^{2} - 9 = 0$$

$$(2x + 3)(2x - 3) = 0$$

$$2x + 3 = 0 \text{ or } 2x - 3 = 0$$

$$2x = -3$$

$$4x^{2} + 3x + 1 = 5(x + 2)$$

$$4x^{2} + 5x + 1 = 5x + 10$$

$$4x^{2} - 9 = 0$$

$$(2x + 3)(2x - 3) = 0$$

$$2x + 3 = 0 \text{ or } 2x - 3 = 0$$

$$2x = -3$$

$$x = -3$$

10.
$$4x^{2} + 5x + 1 = 5(x + 2)$$

 $4x^{2} + 5x + 1 = 5x + 10$
 $4x^{2} - 9 = 0$
 $(2x + 3)(2x - 3) = 0$
 $2x + 3 = 0$ or $2x - 3 = 0$
 $2x = -3$
 $x = -3/2$

10.
$$4x^{2} + 5x + 1 = 5(x + 2)$$

 $4x^{2} + 5x + 1 = 5x + 10$
 $4x^{2} - 9 = 0$
 $(2x + 3)(2x - 3) = 0$
 $2x + 3 = 0$ or $2x - 3 = 0$
 $2x = -3$ $2x = x = -3/2$

10.
$$4x^{2} + 5x + 1 = 5(x + 2)$$

 $4x^{2} + 5x + 1 = 5x + 10$
 $4x^{2} - 9 = 0$
 $(2x + 3)(2x - 3) = 0$
 $2x + 3 = 0$ or $2x - 3 = 0$
 $2x = -3$ $2x = 3$
 $x = -3/2$

10.
$$4x^{2} + 5x + 1 = 5(x + 2)$$

 $4x^{2} + 5x + 1 = 5x + 10$
 $4x^{2} - 9 = 0$
 $(2x + 3)(2x - 3) = 0$
 $2x + 3 = 0$ or $2x - 3 = 0$
 $2x = -3$ $2x = 3$
 $x = -3/2$ or

10.
$$4x^{2} + 5x + 1 = 5(x + 2)$$

 $4x^{2} + 5x + 1 = 5x + 10$
 $4x^{2} - 9 = 0$
 $(2x + 3)(2x - 3) = 0$
 $2x + 3 = 0$ or $2x - 3 = 0$
 $2x = -3$ $2x = 3$
 $x = -3/2$ or $x = 3$

10.
$$4x^{2} + 5x + 1 = 5(x + 2)$$

 $4x^{2} + 5x + 1 = 5x + 10$
 $4x^{2} - 9 = 0$
 $(2x + 3)(2x - 3) = 0$
 $2x + 3 = 0$ or $2x - 3 = 0$
 $2x = -3$ $2x = 3$
 $x = -3/2$ or $x = 3/2$

10.
$$4x^2 + 5x + 1 = 5(x + 2)$$

 $4x^2 + 5x + 1 = 5x + 10$
 $4x^2 - 9 = 0$
 $(2x + 3)(2x - 3) = 0$
 $2x + 3 = 0$ or $2x - 3 = 0$
 $2x = -3$ $2x = 3$
 $x = -3/2$ or $x = 3/2$

Solving Second Degree Equations With 1 Variable The Factoring Method 10. $4x^2 + 5x + 1 = 5(x + 2)$ $4x^2 + 5x + 1 = 5x + 10$ $4x^2 - 9 = 0$ (2x + 3)(2x - 3) = 0

Good luck on your homework !!! x = -3/2 or x = 3/2