

Starter

12 FEB 2018

Multiply and simplify.

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

	x	-2
$3x$	$3x^2$	$-6x$
-2	$-2x$	4

$$3x^2 - 8x + 4$$

To factor and use the zero product property to solve polynomial equations, remember these steps:

1. Set each equation = 0;
2. Factor the polynomial (start by looking for a GCF);
3. Set each factor = 0;
4. Solve each equation;
5. Check your roots in the original equation.

10. $a^2 + 5a = 0$

$$(a)(a + 5) = 0$$

$$a = 0$$

$$a + 5 = 0$$

$$\underline{-5} \quad \underline{-5}$$

$$a = -5$$

Solve the equation by FIRST factoring out the GCF.

a. $\underline{m^2} - \underline{3m} = 0$

$$m(m - 3) = 0$$

$$m = 0$$

$$m - 3 = 0$$
$$+3 \quad +3$$

$$m = 0$$

$$m = 3$$

b. $\underline{w^2} - \underline{2w} = 0$

$$w(w - 2) = 0$$

$$w - 2 = 0$$
$$+2 \quad +2$$

$$w = 2$$

$$w = 0$$

$$w = 2$$

$$c. \underline{g^2} - 4\underline{g} = 0$$

$$\underline{g}(g - 4) = 0$$

$$g = 0$$

$$g = 4$$

Name _____
Practice

Solve the equation by FIRST factoring out the GCF.

a. $m^2 - 3m = 0$

b. $w^2 - 2w = 0$

c. $g^2 - 4g = 0$

d. $3h^2 - 6h = 0$

e. $2f^2 - 6f = 0$

f. $9k^2 - 3k = 0$

g. $3d^2 - d = 0$

h. $2t^2 - 2t = 0$

i. $4p^2 - 6p = 0$

j. $5b^2 - 10b = 0$

Finish for homework.