

Warm Up **week 8**

Solve the equation.

1) $(x - 42)(x + 12) = 0$ ~~$(x = 42)(x = -12)$~~

~~$x - 42 = 0$~~
 $x = 42$

~~$x + 12 = 0$~~
 $x = -12$

~~$x = 42$~~
 ~~$x = -12$~~

Factor.

2) $x^2 - 10x + 16$

~~$\begin{array}{r} 16 \\ -2 \quad -8 \\ -10 \end{array}$~~
 ~~$x = -2$~~
 ~~$x = -8$~~

$(x-2)(x-8)$

~~$(x-2)$~~
 ~~$(x-8)$~~
 ~~$(x+2)(x+8)$~~

Homework Questions?

10.4-10.5 out of 21 pts

A - 19

B - 17

C - 15

D - 13

10.5 Notes

Example 4: Solving a Quadratic Equation

$$x^2 - 6x = 72$$

$$\quad -72 \quad -72$$

$$x^2 - 6x - 72 = 0$$

$$(x-12)(x+6) = 0$$

$$\begin{array}{l} / \\ x-12=0 \\ +12 \quad +12 \\ \hline x=12 \end{array}$$

$$\begin{array}{l} / \\ x+6=0 \\ \hline x=-6 \end{array}$$

$$\begin{array}{r} -72 \\ \times \\ \hline -12 \quad 6 \\ + \quad -6 \\ \hline \end{array}$$

Try It

$$1) x^2 + x - 42 = 0$$

$$(x-6)(x+7) = 0$$

$$x-6=0$$

$$x=6$$

$$x+7=0$$

$$x=-7$$

$$\begin{array}{r} -42 \\ \times \\ \hline -6 \quad 7 \\ + \quad - \\ \hline \end{array}$$

$$2) x^2 - 17x - 18 = 20$$

$$\quad -20 \quad -20$$

$$x^2 - 17x - 38 = 0$$

$$(x-19)(x+2) = 0$$

$$x-19=0$$

$$x=19$$

$$x+2=0$$

$$x=-2$$

$$\begin{array}{r} -38 \\ \times \\ \hline -19 \quad 2 \\ + \quad - \\ \hline \end{array}$$

Steps to Solve an equation

- 1) $= 0$ (Standard Form)
- 2) ~~c ends b middle~~
- 3) $(x \quad)(x \quad) = 0$ Factor
- 4) Solve $x =$ $x =$

- 1) Finish 9.8 wkst #17-28
(DUE BY END OF HOUR)
- 2) 10.5 Review
p.607 #27-41