Section P.4 day 2	Solving Equations Algebraically and Graphically
Objective:	Given an rational equation, students will find its solutions algebraically, graphically and explain the process. *Study Problems* *Page 50 #1, 15-23 odd* Due Thursday *Pick up a calculator to find solution*

Section P.4 Solve Equations

1. I will be able to solve quadratic equations by factoring and completing the square.

2. I will be able to solve ~~a radical~~ equation by combining fractions.

3. I will be able to solve absolute value equation by writing two equation.

4. I will be able to solve radical equations by simplifying the power to one.

Warm-up

Solve for the variable.

$$a)\ 8-3n=-8n+23$$

$$b)\ 3x-(x-1)=1-(3x-9)$$

$$c)\ -\frac{5}{x}=\frac{20}{3}$$

a) n=3

b) 9/5

c)-3/4

Error Analysis

Amy wrote the equation for a line passing through (-1,4) and perpendicular to y=5x-4. Find her error in her work and correct it.

Amy error is forgetting the neg. for the ⊥ slope

$$y-4=\frac{-1}{5}(x-(-1))$$

$$y-4=\frac{-1}{5}(x+1)$$

$$y=\frac{-1}{5}(x+1)+4$$

$$y=-3x+21$$

Example

Determine whether the given values of x are solutions of the equation. Justify your answer

$$\frac{5}{2x} - \frac{4}{x} = 3 \checkmark$$

$\boxed{a)\ x = -\frac{1}{2}}$ $b)\ x = 4$

$c)\ x = 0$ $d)\ x = \frac{1}{4}$

$\frac{5}{2(-\frac{1}{2})} - \frac{4}{-1/2}$

$\frac{5}{-1} - 4 \cdot (-2)$

$-5 + 8 = 3$

How can the calculator help you finish faster?