Visual Guided Practice   Name: _____

Learning Target: I will solve non-linear equations.   **Form A**

Directions: Apply the meaning of exponents to solve each non-linear equation.

1. We Do Together

a.

$$x^2 = 81$$

$$\sqrt{x^2} = \sqrt{81}$$

$$\sqrt{x \cdot x} = \sqrt{\boxed{} \cdot \boxed{}}$$

$$\text{or } \sqrt{\boxed{} \cdot \boxed{}}$$

$$x = \pm \boxed{}$$

b.

$$x^3 = -64$$

$$\sqrt[3]{x^3} = \sqrt[3]{-64}$$

$$\sqrt{x \cdot x \cdot x} = \sqrt{\boxed{} \cdot \boxed{} \cdot \boxed{}}$$

$$x = \boxed{}$$

c.

$$x^2 = \frac{9}{25}$$

$$\sqrt{x^2} = \sqrt{\frac{\boxed{}}{\boxed{}}}$$

$$\sqrt{x \cdot x} = \sqrt{\frac{\boxed{}}{\boxed{}} \cdot \frac{\boxed{}}{\boxed{}}}$$

$$\text{or } \sqrt{-\frac{\boxed{}}{\boxed{}} \cdot -\frac{\boxed{}}{\boxed{}}}$$

$$x = \pm \frac{\boxed{}}{\boxed{}}$$

2. Reflect: What questions do you have about solving each non-linear equations?

3. You Do Together

a.

$$x^2 = 49$$

b.

$$x^3 = 27$$

c.

$$x^2 = \frac{4}{9}$$

Learning Target: I will solve non-linear equations.   **Form B**

Directions: Apply the meaning of exponents to solve each non-linear equation.

1. We Do Together

a.	b.	c.
$x^2 = 64$ $\sqrt{x^2} = \sqrt{64}$ $\sqrt{x \bullet x} = \sqrt{\boxed{} \bullet \boxed{}}$ or $\sqrt{\boxed{} \bullet \boxed{}}$ $x = \pm \boxed{}$	$x^3 = -125$ $\sqrt[3]{x^3} = \sqrt[3]{-125}$ $\sqrt{x \bullet x \bullet x} = \sqrt{\boxed{} \bullet \boxed{} \bullet \boxed{}}$ $x = \boxed{}$	$x^2 = \dfrac{49}{121}$ $\sqrt{x^2} = \sqrt{\dfrac{\boxed{}}{\boxed{}}}$ $\sqrt{x \bullet x} = \sqrt{\dfrac{\boxed{}}{\boxed{}} \bullet \dfrac{\boxed{}}{\boxed{}}}$ or $\sqrt{-\dfrac{\boxed{}}{\boxed{}} \bullet -\dfrac{\boxed{}}{\boxed{}}}$ $x = \pm \dfrac{\boxed{}}{\boxed{}}$

2. Reflect: What questions do you have about solving each non-linear equations?

3. You Do Together

a.	b.	c.
$x^2 = 25$	$x^3 = 8$	$x^2 = \dfrac{81}{100}$

Learning Target: I will solve non-linear equations.   **Form C**

Directions: Apply the meaning of exponents to solve each non-linear equation.

1. We Do Together

a.	b.	c.
$x^2 = 36$ $\sqrt{x^2} = \sqrt{36}$ $\sqrt{x \cdot x} = \sqrt{\boxed{} \cdot \boxed{}}$ or $\sqrt{\boxed{} \cdot \boxed{}}$ $x = \pm \boxed{}$	$x^3 = -216$ $\sqrt[3]{x^3} = \sqrt[3]{-216}$ $\sqrt{x \cdot x \cdot x} = \sqrt{\boxed{} \cdot \boxed{} \cdot \boxed{}}$ $x = \boxed{}$	$x^2 = \dfrac{121}{144}$ $\sqrt{x^2} = \sqrt{\dfrac{\boxed{}}{\boxed{}}}$ $\sqrt{x \cdot x} = \sqrt{\dfrac{\boxed{}}{\boxed{}} \cdot \dfrac{\boxed{}}{\boxed{}}}$ or $\sqrt{-\dfrac{\boxed{}}{\boxed{}} \cdot -\dfrac{\boxed{}}{\boxed{}}}$ $x = \pm \dfrac{\boxed{}}{\boxed{}}$

2. Reflect: What questions do you have about solving each non-linear equations?

3. You Do Together

a.	b.	c.
$x^2 = 81$	$x^3 = -64$	$x^2 = \dfrac{49}{64}$