Warm Up

▸ Write down anything and everything you know about perfect squares.

Domain & Range
Non-Linear Equations

Objective

▸ Students will be able to determine domain and range of radical equations.

Perfect Squares

Domain and Range of Radical Equations

▸ $f(x) = \sqrt{x}$

Domain and Range of Radical Equations

▸ $f(x) = \sqrt{x - 4}$

Domain and Range of Radical Equations

▸ $f(x) = \sqrt{x} - 4$

Domain and Range of Radical Equations

▸ $f(x) = -\sqrt{x + 3}$

Domain and Range of Radical Equations

- $f(x) = \sqrt{x} + 3$

Domain and Range of Radical Equations

- $f(x) = \sqrt{x-2} + 3$

Closure

- What did we learn today?

Exit Ticket

- Determine the domain and range for the following:
- $f(x) = -\sqrt{x-1}$

Homework

> ‣ Create two different radical equations.

Warm Up
‣ Get out your homework from yesterday.

‣ Exchange with a partner.

‣ Determine the domain and range of your partner's two radical equations.

Domain & Range
Non-Linear Equations

Objective

> Students will be able to determine domain and range of rational and/or radical equations.

Domain and Range of Rational Equations

> $f(x) = \frac{1}{x}$

Domain and Range of Rational Equations

> $f(x) = \frac{1}{x-6}$

Domain and Range of Rational Equations

> $f(x) = \frac{1}{x+8}$

Domain and Range of Rational Equations

▸ $f(x) = \frac{1}{2x-4}$

REVIEW: Domain and Range of Radical Equations

▸ $f(x) = \sqrt{x}$

Domain and Range of Rational/Radical Equations

▸ $f(x) = \frac{1}{\sqrt{x}}$

Domain and Range of Rational/Radical Equations

▸ $f(x) = \frac{1}{\sqrt{x-1}}$

Domain and Range of Rational/Radical Equations

- $f(x) = \frac{1}{\sqrt{x}-1}$

Domain and Range of Rational/Radical Equations

- $f(x) = \frac{-2}{\sqrt{x}+3}$

Domain and Range of Rational/Radical Equations

- $f(x) = \frac{1}{\sqrt{x}+3}$

Domain and Range of Rational/Radical Equations

- $f(x) = \frac{1}{-\sqrt{2x}-1}$

Closure

‣ What did we learn today?

Exit Ticket

‣ What are the domain and range for each of the following?

‣ $f(x) = \frac{2}{x+6}$

‣ $f(x) = \sqrt{x-7}$

‣ $f(x) = \frac{1}{\sqrt{x+1}}$

Homework

‣ Create three different radical and/or rational equations like we used in class.

Identify the Domain and Range.

1. $y = \sqrt{x} + 2$

2. $y = \sqrt{x} - 6$

3. $y = \sqrt{x - 5}$

4. $y = -\sqrt{x + 4}$

5. $y = \frac{1}{\sqrt{x-2}}$

Identify the Domain and Range.

1. $y = \sqrt{x} + 2$

2. $y = \sqrt{x} - 6$

3. $y = \sqrt{x - 5}$

4. $y = -\sqrt{x + 4}$

5. $y = \frac{1}{\sqrt{x-2}}$