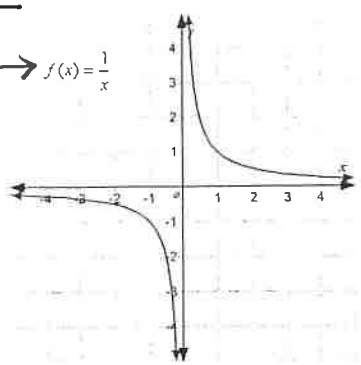
PARENT FUNCTIONS
(AND THEIR TABLES)

Rational Function

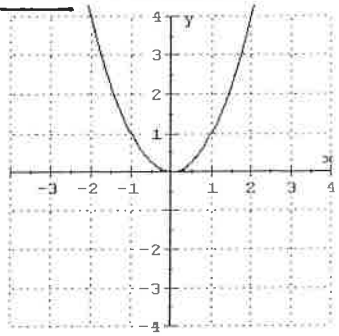
Equation → $f(x) = \frac{1}{x}$



Standard Quadratic Function

Parent Function

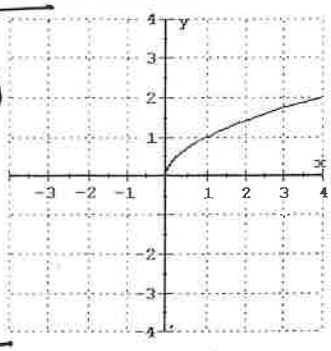
equation :



Square Root Function

Parent Function

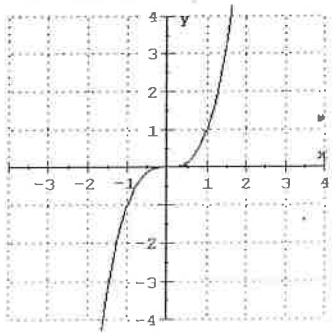
Equation:



Cubic Function

Parent Function

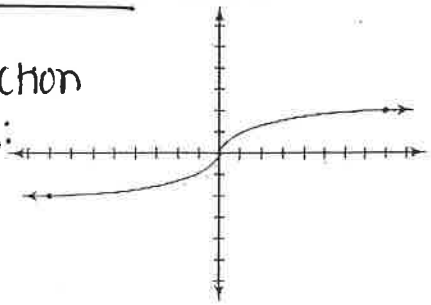
Equation :



Cube Root Function

Parent Function

Equation:



Kuta Software - Infinite Algebra 2

Name_____

Graphing Radicals

Date_____ Period____

Identify the domain and range of each.

1) $y = \sqrt{x-2} + 5$

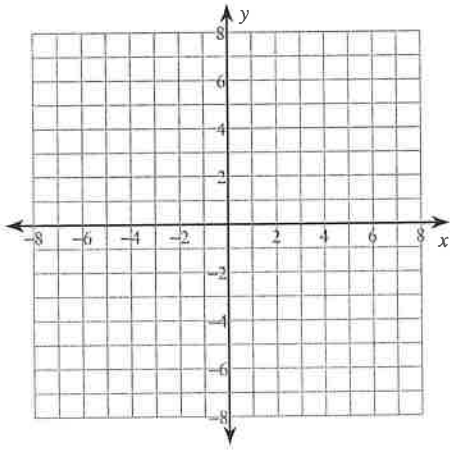
2) $y = \sqrt{x+2} - 3$

3) $y = \sqrt[3]{x+1} - 4$

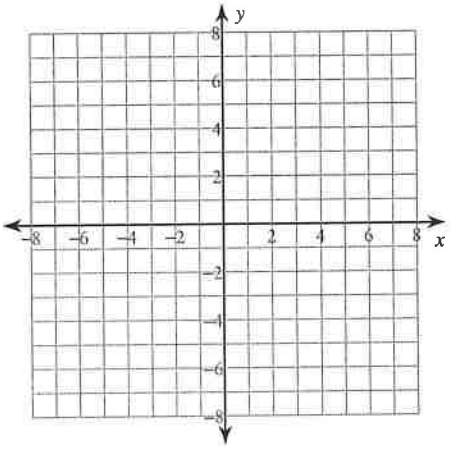
4) $y = \sqrt[3]{x-1} - 1$

Sketch the graph of each function. List the transformations.

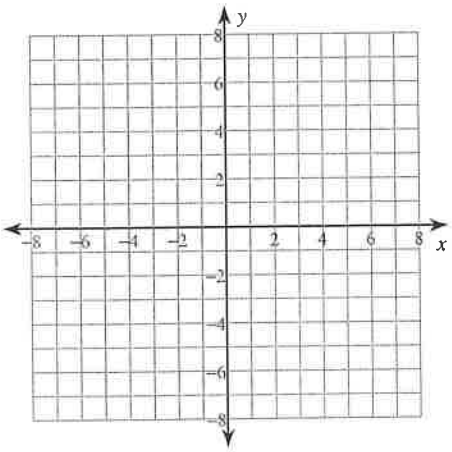
5) $y = \sqrt{x} + 5$



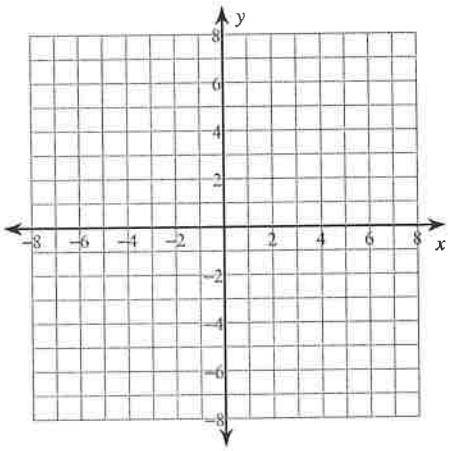
6) $y = \sqrt{x} - 2$



7) $y = 3 + \sqrt{x}$

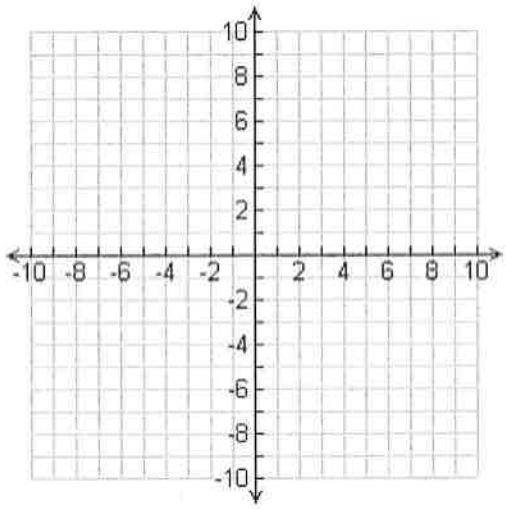


8) $y = \sqrt{x} + 4$

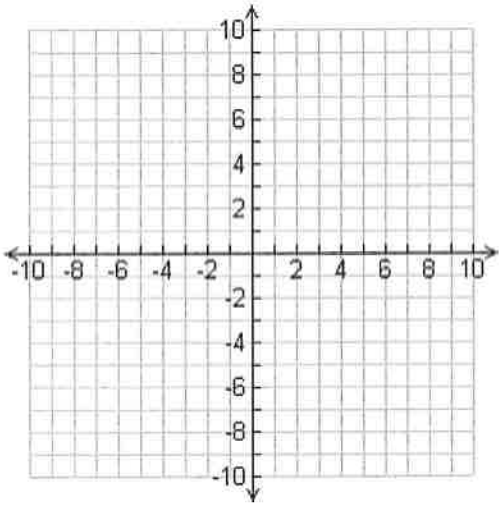


Graph, list the transformations, find Domain and Range

1) $f(x) = (x+4)^3 - 6$



2) $f(x) = (x-1)^3 + 5$



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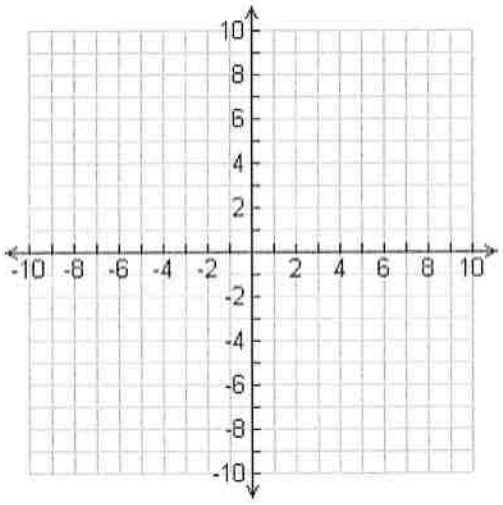
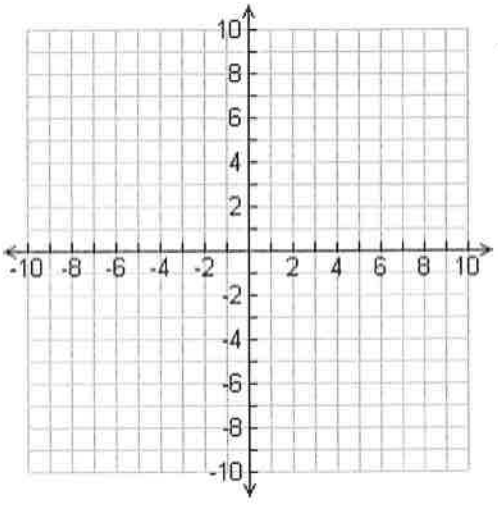
3) $f(x) = 2(x+2)^3 - 2$



4) $f(x) = -(x-5)^3 + 3$



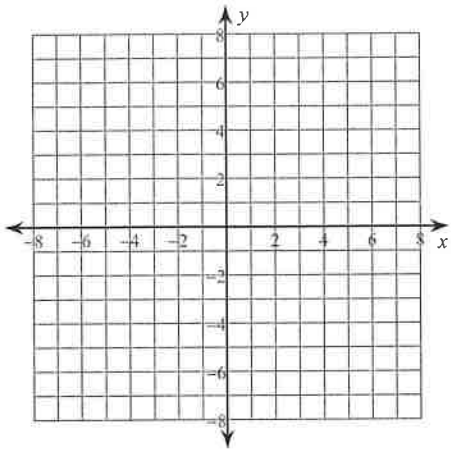
College Algebra

Date_____

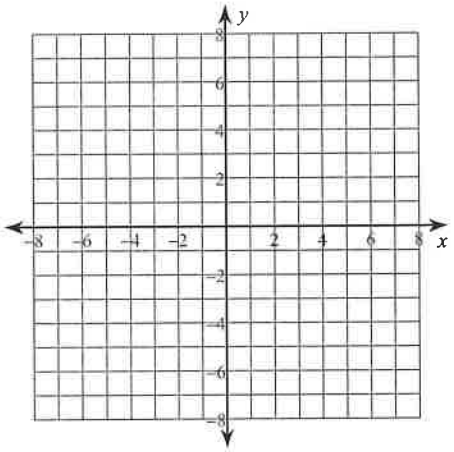
Graphing Cube Root Functions Worksheet

Sketch the graph of each function. List the transformations.

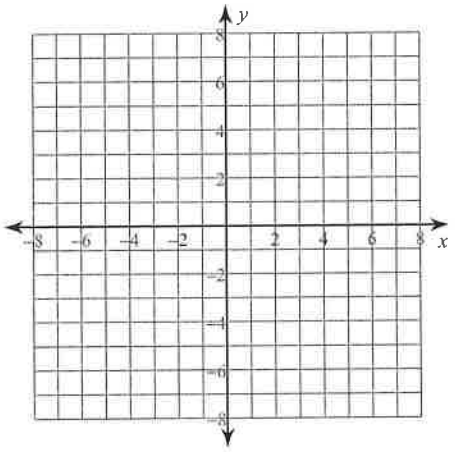
1) $y = \sqrt[3]{x+2} - 3$



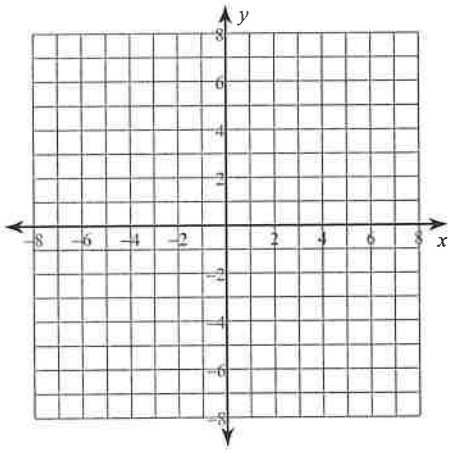
2) $y = \sqrt[3]{x} - 4$



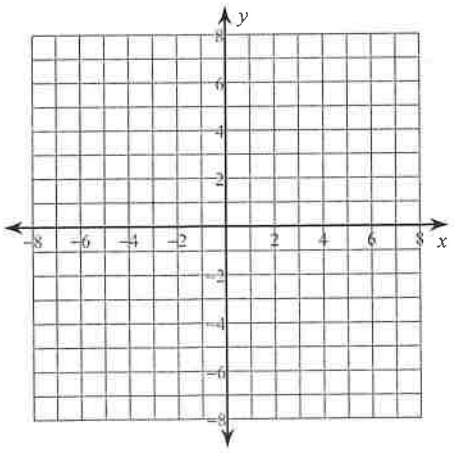
3) $y = \sqrt[3]{x-1} - 1$



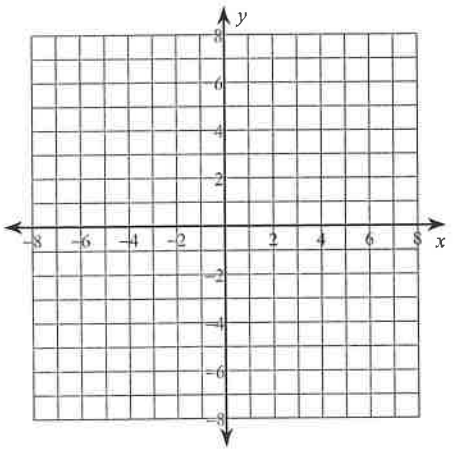
4) $y = \sqrt[3]{x+1}$



5) $y = \sqrt[3]{x-1}$



6) $y = \sqrt[3]{x+3} - 1$



Name : _____ Score : _____

Teacher : _____ Date : _____

Solving Rational Expressions

Solve each equation.

1) $\frac{1}{14k^2} = \frac{1}{7k^2} + \frac{1}{k}$

2) $\frac{y - 11}{18y^2} + \frac{12}{9y^2} = \frac{y + 2}{9y^2}$

3) $\frac{1}{h^2} = \frac{1}{81}$

4) $\frac{1}{x} + \frac{3x - 7}{x^2 + 11x} = \frac{3x + 6}{x^2 + 11x}$

5) $\frac{1}{10p^2} = \frac{1}{5p^2} + \frac{1}{p}$

6) $\frac{1}{s} = \frac{6}{5s} - 4$

7) $\frac{1}{q^2} = \frac{1}{4}$

8) $\frac{1}{z} + \frac{6z + 7}{z^2 - 10z} = \frac{3z + 6}{z^2 - 10z}$

{ }

9) $\frac{1}{c} = \frac{5}{12c} - 2$

10) $\frac{n + 10}{16n^2} + \frac{2}{8n^2} = \frac{n - 9}{8n^2}$

1) Determine the vertical and horizontal asymptotes.

$$y = \frac{4}{x-13} + 7$$

2) Solve: $\sqrt{x-2} - 2 = 2$

3) $\sqrt{10x^2 - 49} = 3x$

4) $\sqrt[3]{6x-5} = \sqrt[3]{3x+2}$