Intermediate Algebra B Name Key!!

Radical Functions Re-Teach Hour 1 2 3 4 5

7.1 I can graph square root and demonstrate understanding of the significant features of its graph.

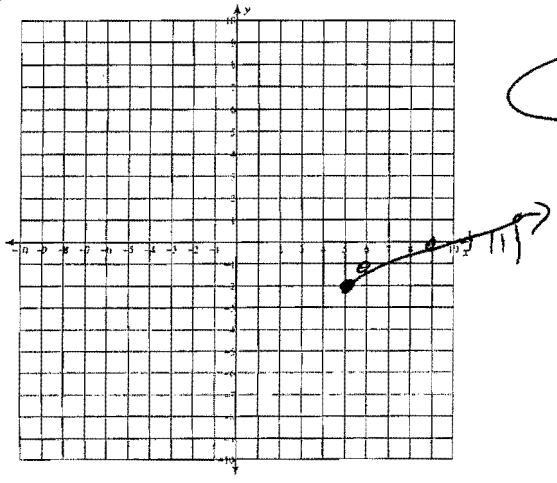
$x-5=0 \quad x=5$
$x-5=1 \quad x=6$
$x-5=4 \quad x=9$
$x-5=9 \quad x=14$

Level 1

Graph each of the following

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

x	y
5	-2
6	-1
9	0
14	1



(Increasing) or Decreasing? (Circle one)

Domain: $x \geq 5$

Range: $y \geq -2$

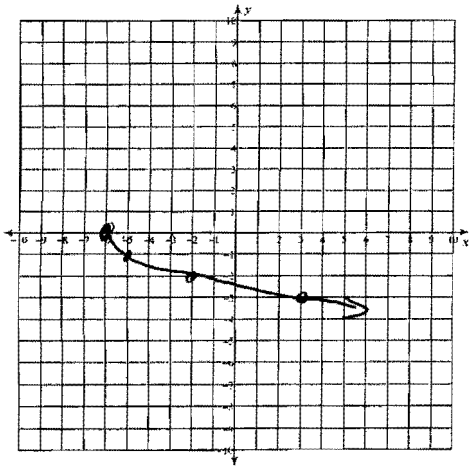
x-intercept: ~~none~~ $x=9$

y-intercept: ~~none~~

$x+6=0 \quad x=-6$
$x+6=1 \quad x=-5$
$x+6=4 \quad x=-2$
$x+6=9 \quad x=3$

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

x	y
-6	0
-5	-1
-2	-2
3	-3



Increasing or (Decreasing? (Circle one))

Domain: $x \geq -6$

Range: $y \leq 0$

x-intercept: $x = -6$

y-intercept: $y = -2.5$

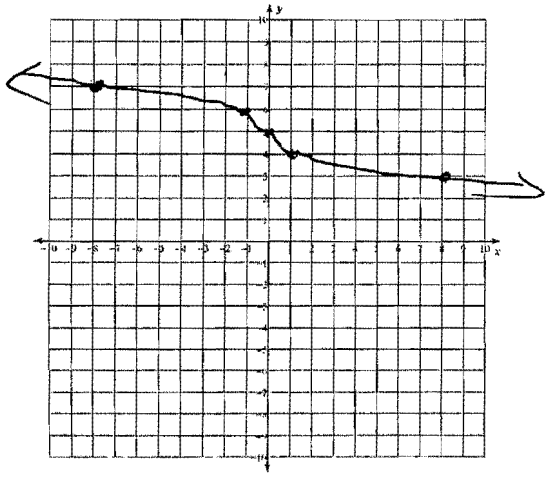
Intermediate Algebra B *Name* _____

Radical Functions Re-Teach *Hour 1 2 3 4 5*

7.1 I can graph square root and cube root functions and demonstrate understanding of the significant features of its graph.

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

x	y
~~-8~~	~~7~~
-8	7
-1	6
0	5
1	4
8	3



$x = -8$ $x = 8$
$x = -1$
$x = 0$
$x = 1$

Increasing or ~~Decreasing?~~ (Circle one)

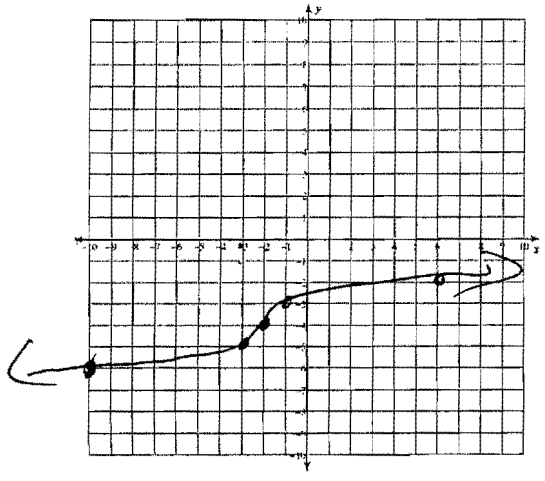
Domain: $\mathbb{R}$

Range: $\mathbb{R}$'s

Point of Inflection: $(0, 5)$

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

x	y
-10	-6
-3	-5
-2	-4
-1	-3
6	-2



$x+2 = -8$ $x = -10$ $x+2 = 8$
$x+2 = -1$ $x = -3$ $x = 6$
$x+2 = 0$ $x = -2$
$x+2 = 1$ $x = -1$

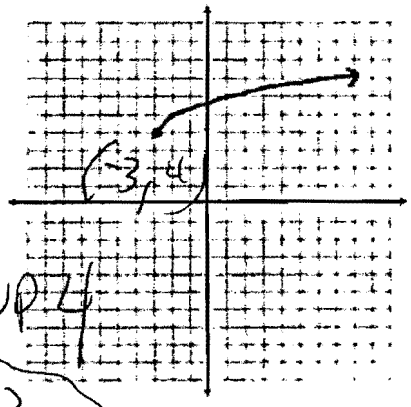
Increasing or Decreasing? (Circle one)

Domain: $\mathbb{R}$'s

Range: $\mathbb{R}$'s

Point of Inflection: $(-2, -4)$

5. Which choice is the equation of the graph below?



a. $f(x) = \sqrt{x-3} + 4$
b. $f(x) = \sqrt{x+3} + 4$
c. $f(x) = \sqrt{x-3} - 4$
d. $f(x) = \sqrt{x+3} - 4$

Shift Left 3, up 4

$x + \_\_ = -3$
-3 $+3$

$x + 3 = 0$ $y = \sqrt{0} - 4$ $y = +4$