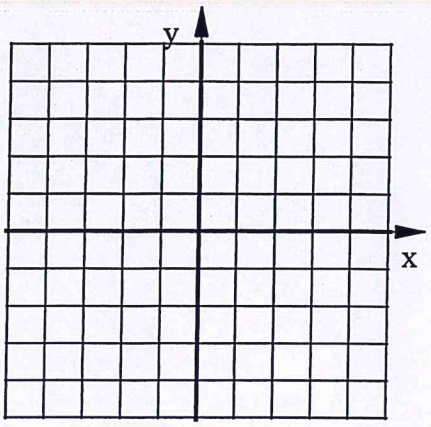
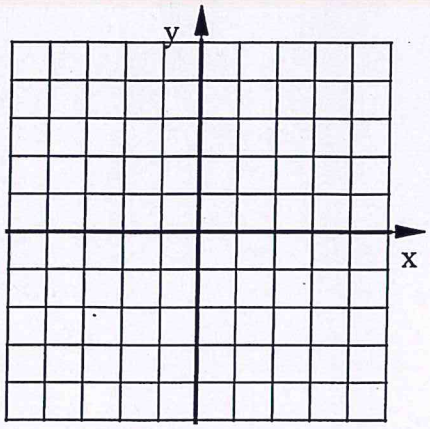
Bellwork Alg 2 Wednesday, February 5, 2020

1. Graph each Square Root Function using at least 3 points.

a. $y = 4\sqrt{-(x-3)} - 5$



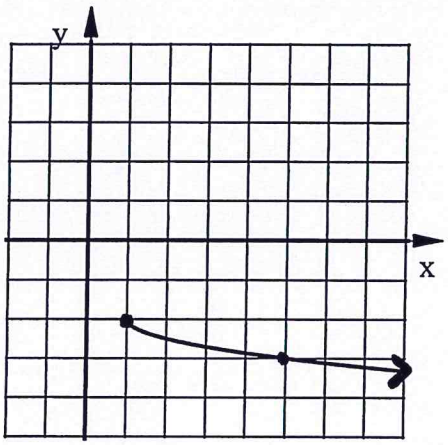
b. $y = -3\sqrt{x+2} + 4$



2. Write the equation of each Square Root Function.

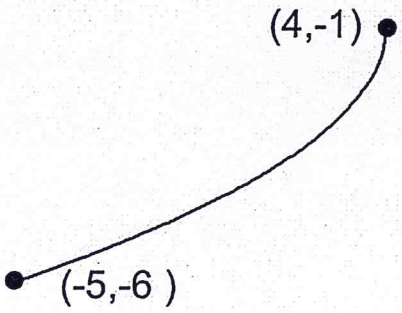
a.

$y =$



b.

$y =$



3. State the Domain and Range of each Square Root Function.

a) $y = -8\sqrt{x+11} - 4$

Domain:

Range:

b) $y = 3\sqrt{-(x+9)} + 13$

Domain:

Range:

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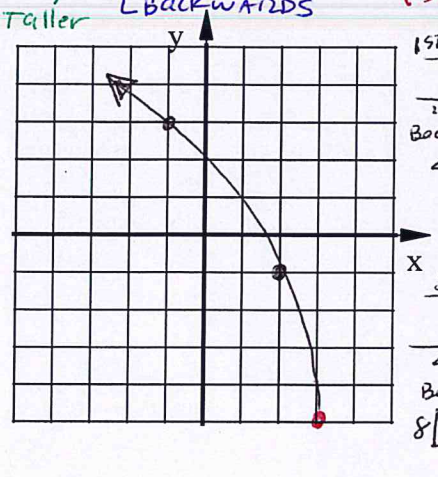
ANSWERS

1. Graph each Square Root Function using at least 3 points.

a. $y = 4\sqrt{-(x-3)} - 5$

4x taller; BACKWARDS; START AT (3, -5)

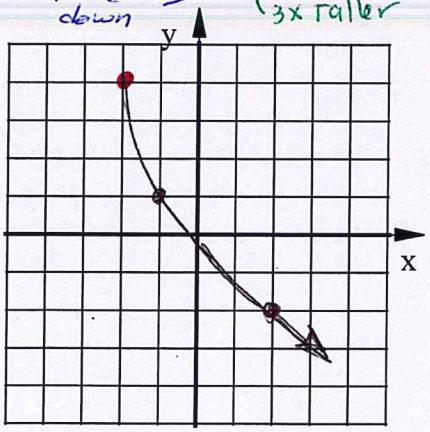


1ST GOOD PT: 1 over 1 becomes 4 over 1

2nd good pt: 2 over 4 becomes 8 over 4

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

upside down; 3x taller; START AT (-2, 4)



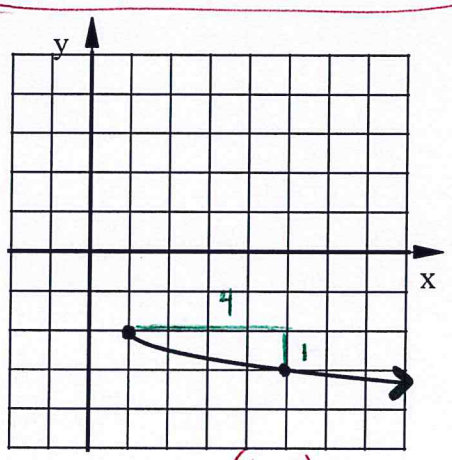
1ST GOOD PT: 1 over 1 becomes 3 over 1

2nd GOOD PT: 2 over 4 becomes 6 over 4

2. Write the equation of each Square Root Function.

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

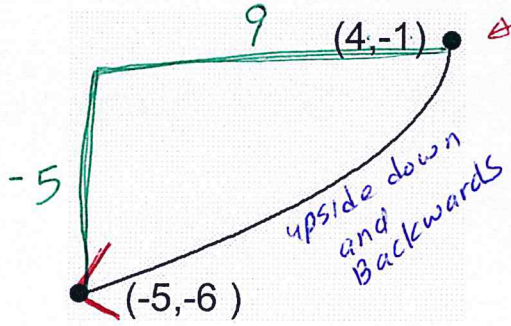
b. $y = -\frac{5}{3}\sqrt{-(x-4)} - 1$



STARTS AT (1, -2) (h, k)

THIS FUNCTION: 4 over 1

Parent: 1 over 2 } 1/2 as tall and upside down



STARTS AT (4, -1) (h, k)

THIS GRAPH: 9 over -5

parent: 3 over 9

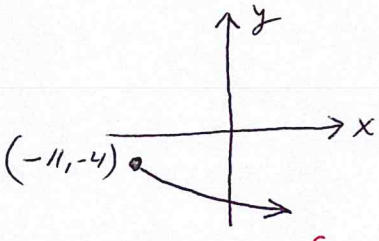
$a = -5/3$

3. State the Domain and Range of each Square Root Function.

a) $y = -8\sqrt{x+11} - 4$

Domain: $[-11, \infty)$

Range: $[-\infty, -4)$



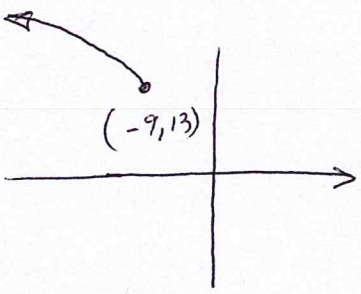
STARTS AT (-11, -4)

upside down

b) $y = 3\sqrt{-(x+9)} + 13$

Domain: $(-\infty, -9]$

Range: $[13, \infty)$



STARTS AT (-9, 13)

Backwards