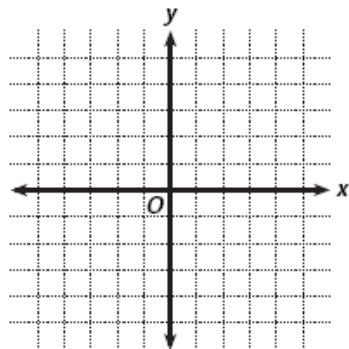


Algebra 2 Honors  
Homework – Square Roots Functions

Name \_\_\_\_\_

For questions 1 – 4, Graph the following square root functions, without a graphing calculator, and label the given items.

1.  $y = \sqrt{x+1} - 3$



D:

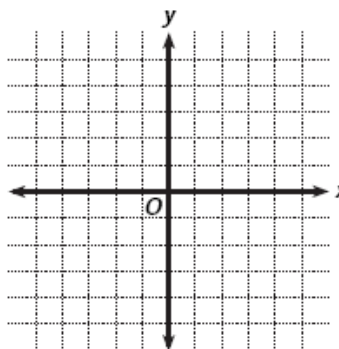
R:

Starting Pt:

Translation:

End Behavior:

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



D:

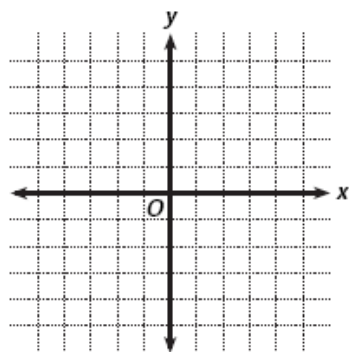
R:

Starting Pt:

Translation:

End Behavior:

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



D:

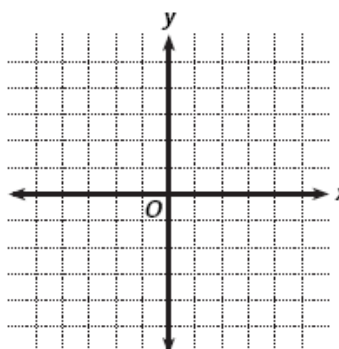
R:

Starting Pt:

Translation:

End Behavior:

4.  $y = -\sqrt{x} + 1$



D:

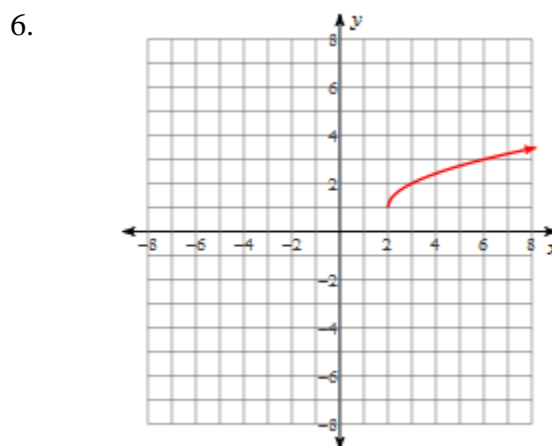
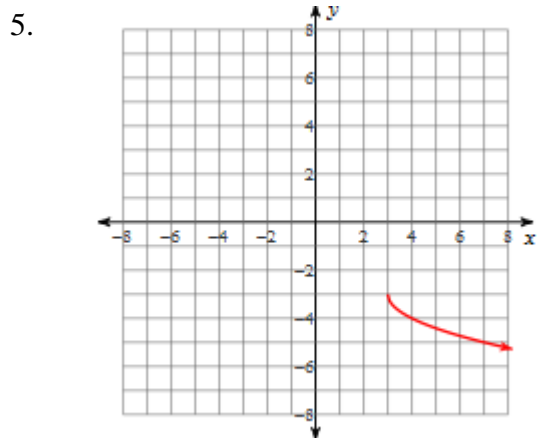
R:

Starting Pt:

Translation:

End Behavior:

For questions 5 – 6, write the translated equation.

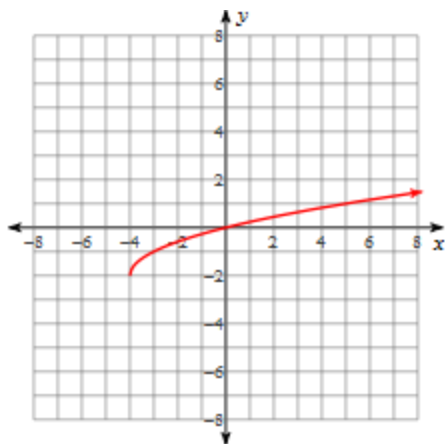


5. \_\_\_\_\_

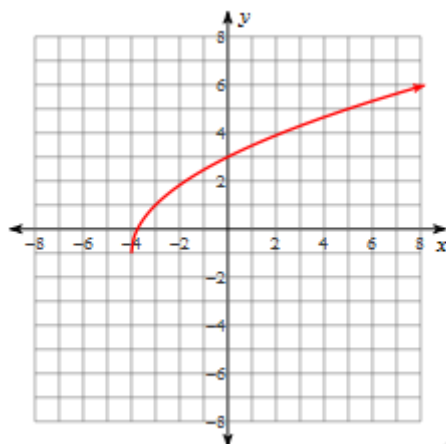
6. \_\_\_\_\_

7. The function  $f(x) = 2\sqrt{x+2} - 4$  is translated up three units and left 2 units. Which of the following is the graph of  $f(x)$  after the translations?

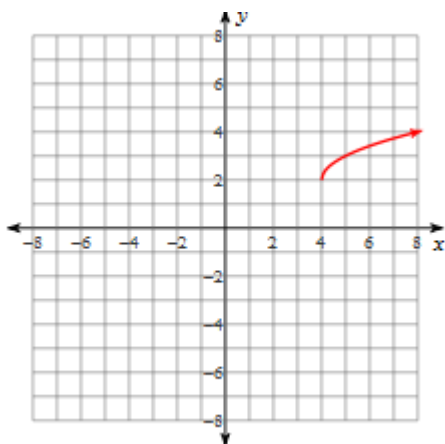
a.



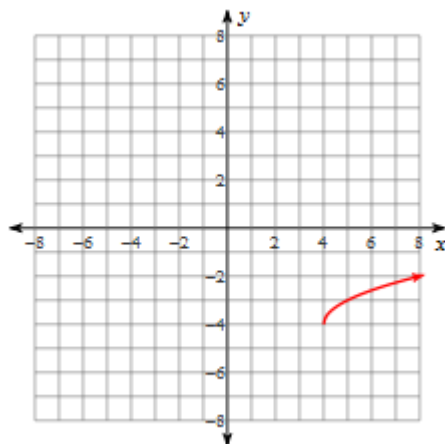
b.



c.



d.



8. State the domain and range of the following function  $f(x) = \sqrt{x-5} + 7$ . 8. D: \_\_\_\_\_

R: \_\_\_\_\_