

Name:

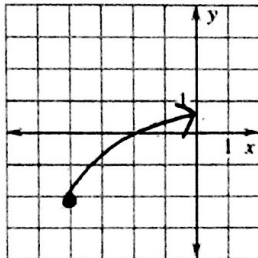
Period:

Date:

Practice Worksheet: Graphing Radical Functions

Graph the function. Then state the domain and range.

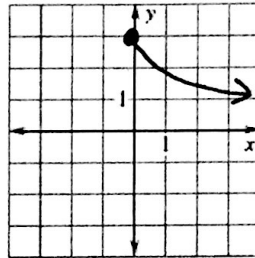
1. $f(x) = \sqrt{x+4} - 2$



left 4
down 2

D: $x \geq -4$
R: $y \geq -2$

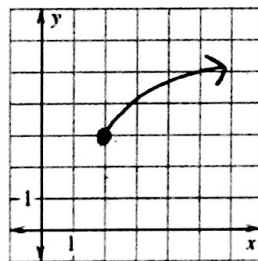
2. $f(x) = -\sqrt{x} + 3$



ref. across x-axis
up 3

D: $x \geq 0$
R: $y \leq 3$

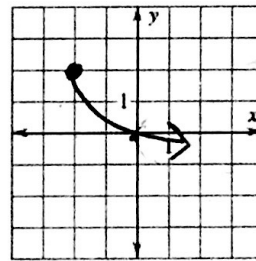
3. $f(x) = (x-2)^{1/2} + 3$



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

D: $x \geq 2$
R: $y \geq 3$

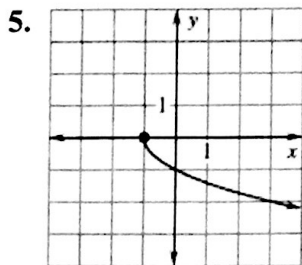
4. $f(x) = -\sqrt{x+2} + 2$



Ref. across x-axis
left 2
up 2

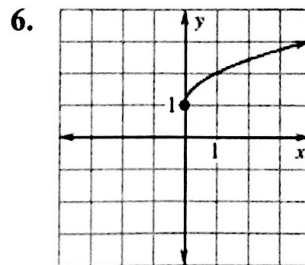
D: $x \geq -2$
R: $y \leq 2$

Write an equation for each graph. Then state the domain and range.



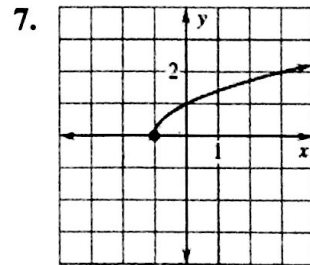
left 1
Ref. across x-axis

$y = -\sqrt{x+1}$
D: $x \geq -1$
R: $y \leq 0$



up 1

$y = \sqrt{x} + 1$
D: $x \geq 0$
R: $y \geq 1$



left 1

$y = \sqrt{x+1}$
D: $x \geq -1$
R: $y \geq 0$

Describe the transformations in the graph of each equation. Then state the domain and range.

8. $f(x) = -\sqrt{x+4} - 1$

Ref. across x-axis

left 4

down 1

D: $x \geq -4$

R: $y \leq -1$

12. $f(x) = 4 + (-x)^{1/2}$

$f(x) = \sqrt{-x} + 4$

Ref. across y-axis

up 4

D: $x \leq 0$

R: $y \geq 4$

9. $f(x) = (x-3)^{1/2} + 2$

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

Right 3

up 2

D: $x \geq 3$

R: $y \geq 2$

13. $f(x) = 5 - (x+4)^{1/2}$

$f(x) = -\sqrt{x+4} + 5$

Ref. across x-axis

left 4

up 5

D: $x \geq -4$

R: $y \leq 5$

10. $f(x) = 2 - \sqrt{x+1}$

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

Ref. across x-axis

left 1

up 2

D: $x \geq -1$

R: $y \leq 2$

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

Ref. across y-axis

left 3

up 2

D: $x \leq -3$

R: $y \geq 2$

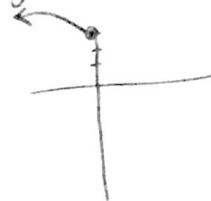
11. $f(x) = \sqrt{-x} + 3$

Ref. across y-axis

up 3

D: $x \leq 0$

R: $y \geq 3$



15. $f(x) = \sqrt{-x+3} - 5$

$f(x) = \sqrt{-(x-3)} - 5$

Ref. across y-axis

Right 3

down 5

D: $x \leq 3$

R: $y \geq -5$