

Practice Test for Radical Functions Unit

Learning Objectives:

- A. Graph a quadratic equation using transformations.
- B. Use the area of squares to model a quadratic function.
- C. Graph a radical function using transformations.
- D. Identify the domain and range of a radical function.
- E. Solve radical equations.
- F. Use a graph to find the solution to a radical equation.
- G. Identify extraneous solutions in a radical function.

Question #	Learning Objective	Know It	Feel Unsure	Right	Wrong	Simple Mistake	Need to Study
1	A						
2	B						
3	C						
4	D						
5	E						
6	F						
7	G						

1. Graph each quadratic function:
 - a. $f(x) = (x + 2)^2 - 4$
 - b. $f(x) = 3(x - 4)^2$
 - c. $f(x) = -\frac{1}{2}(x + 4)^2 + 2$
2. Draw an area model to represent: $f(x) = 3(x + 2)^2 - 2$
3. Graph: $f(x) = -2\sqrt{x + 1} + 3$
4. Identify the domain and range of the function in problem 3.
5. Solve:
 - a. $2 + \sqrt{x + 5} = 3$
 - b. $\sqrt{5x + 14} = x$
 - c. $\sqrt{3x + 5} = \sqrt{x + 1}$
6. Graph this equations to solve: $\sqrt{x - 2} + 2 = 4$
7. Write a radical equation with an extraneous solution. Prove why it has an extraneous solution.