

### 04-03 Sample Quiz - Finding the Inverse of Radical Functions

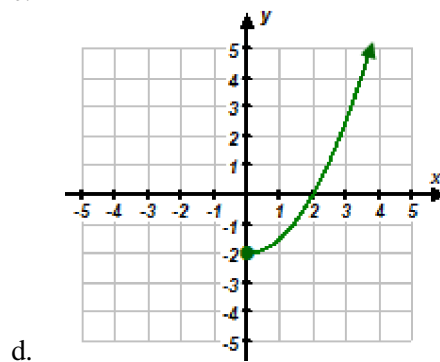
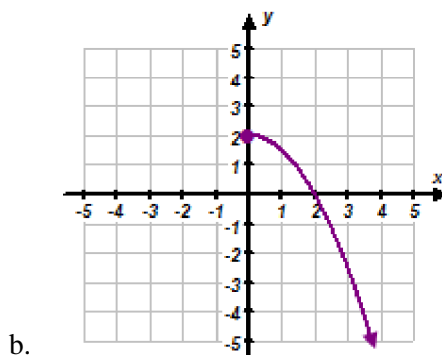
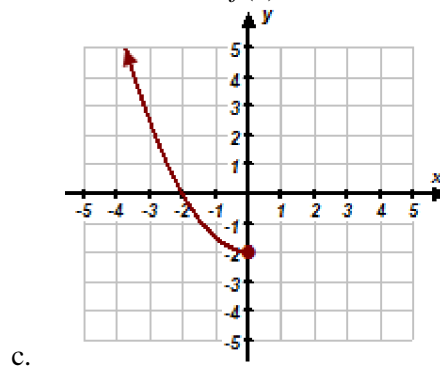
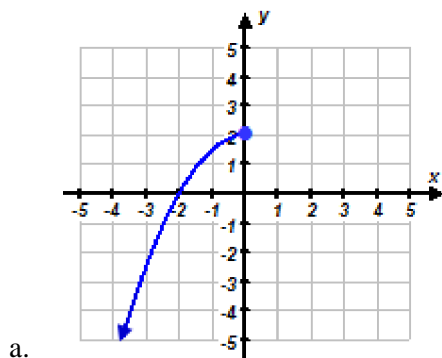
#### Multiple Choice

Identify the choice that best completes the statement or answers the question.

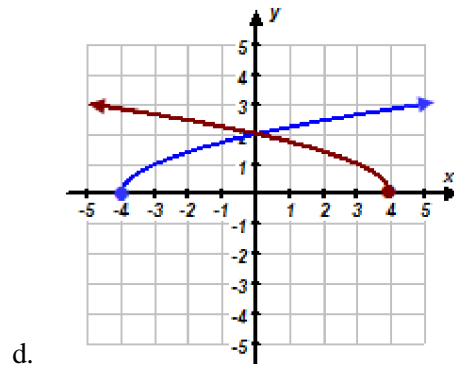
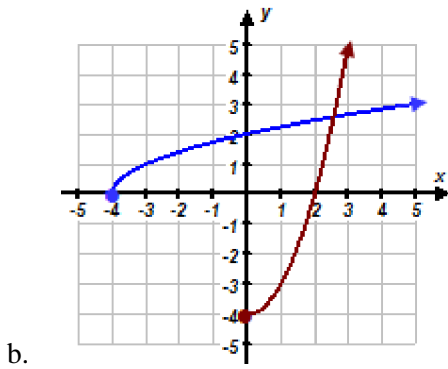
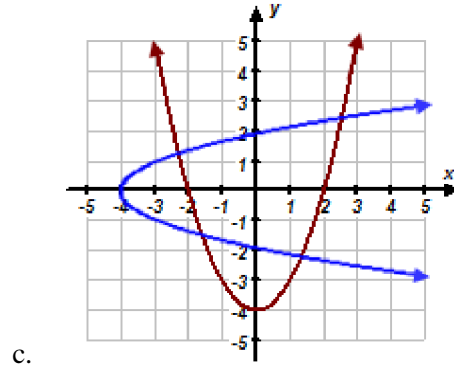
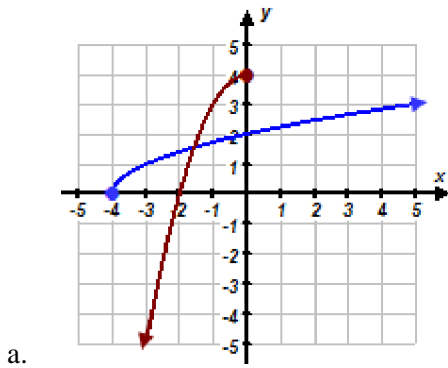
\_\_\_\_\_ 1. Which of the following would represent the inverse of the function,  $f(x) = x^2 + 4$ ?

- a. If  $x \geq 0$  for  $f(x) = x^2 + 4$  then  $f^{-1}(x) = -\sqrt{x-4}$ .  
If  $x < 0$  for  $f(x) = x^2 + 4$  then  $f^{-1}(x) = \sqrt{x-4}$ .
- b. If  $x \geq 0$  for  $f(x) = x^2 + 4$  then  $f^{-1}(x) = \sqrt{x-4}$ .  
If  $x < 0$  for  $f(x) = x^2 + 4$  then  $f^{-1}(x) = -\sqrt{x-4}$ .
- c. If  $x \geq 0$  for  $f(x) = x^2 + 4$  then  $f^{-1}(x) = -\sqrt{x} - 4$ .  
If  $x < 0$  for  $f(x) = x^2 + 4$  then  $f^{-1}(x) = \sqrt{x} - 4$ .
- d. If  $x \geq 0$  for  $f(x) = x^2 + 4$  then  $f^{-1}(x) = \sqrt{x} - 4$ .  
If  $x < 0$  for  $f(x) = x^2 + 4$  then  $f^{-1}(x) = -\sqrt{x} - 4$ .

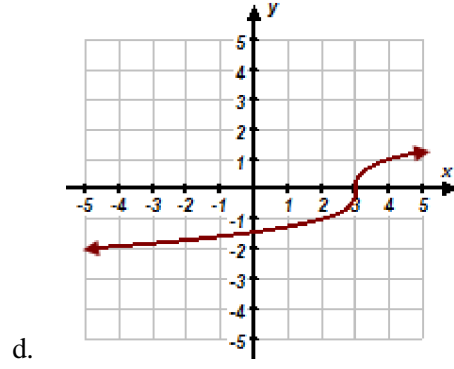
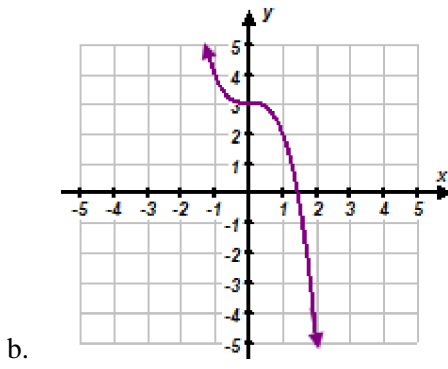
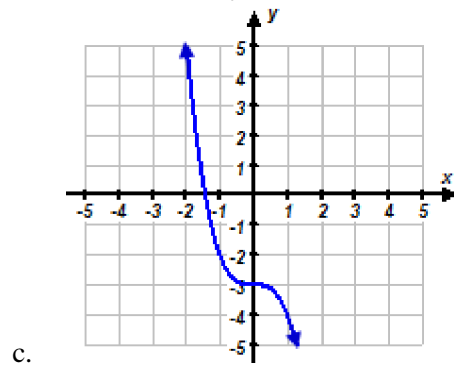
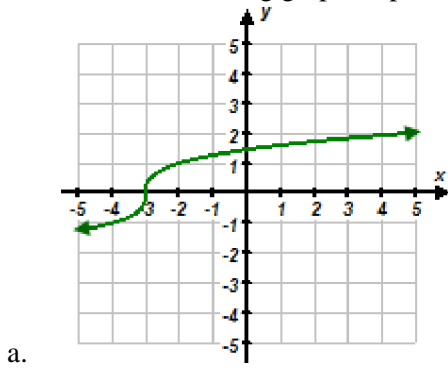
\_\_\_\_\_ 2. Which of the following graphs represent the inverse of the function  $f(x) = \sqrt{2x+4}$ ?



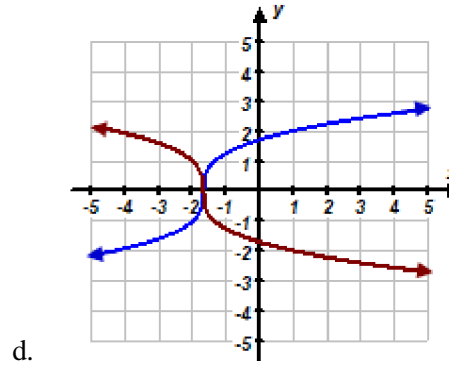
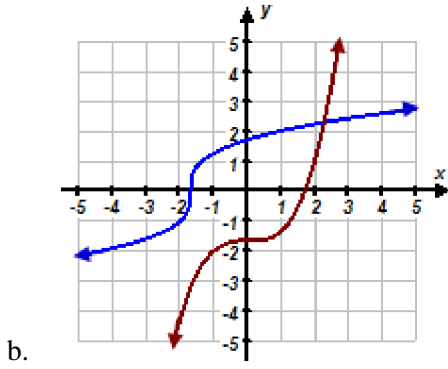
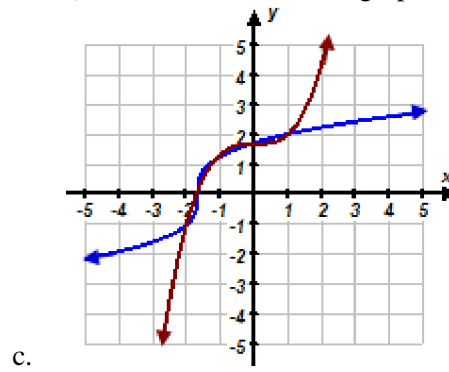
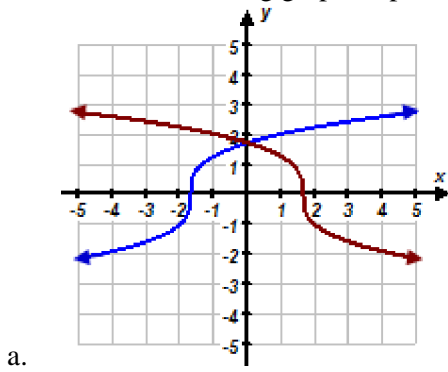
3. Which of the following graphs represent the *function*  $f(x) = \sqrt{x+4}$  and the graph of its *inverse*?



4. Which of the following graphs represent the inverse of the function  $f(x) = x^3 - 3$ ?



5. Which of the following graphs represent the *function*  $f(x) = \sqrt[3]{3x+5}$  and the graph of its *inverse*?



6. Which of the following graphs represent the inverse of the function  $f(x) = \sqrt{-x^2 + 9}$ ?

