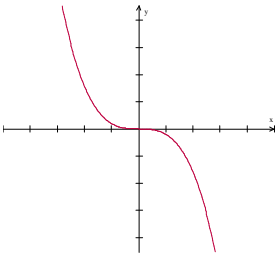
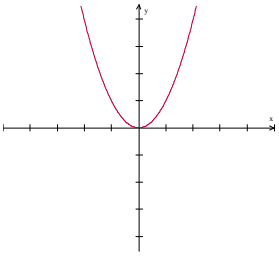
Inverse Functions

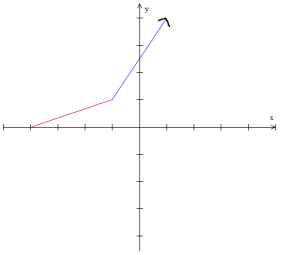
1. Which graphs represent functions that have inverse functions:



2. Which graphs represent functions that have inverse functions:



3. Use the graph of f to draw the graph of its inverse function:



4. Find f(g(x)) and g(f(x)) and determine whether each pair of functions f and g are inverses of each other:

$$f(x) = 9x - 1$$

$$g(x) = \frac{x+1}{9}$$

5. Find f(g(x)) and g(f(x)) and determine whether each pair of functions f and g are inverses of each other:

$$f(x) = 5x - 2$$

$$g(x) = \frac{x+5}{2}$$

6. Find the inverse of:

$$f(x) = 5x - 3$$

7. Find the inverse of:

$$f(x) = (x+3)^3 - 2$$

8. Find the inverse of:

$$f(x) = \frac{4x-1}{x+5}$$

9. Find the inverse of:

$$f(x) = x^2 + 2, x \le 0$$

10. Find the inverse of:

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