

**Topic: Functions****Inverse Functions****Find the Inverse of Functions**

For each of the following functions, find the inverse.

1.  $f(x) = 3x + 6$

4.  $j(x) = -2x + 9$

2.  $g(x) = x^2 - 4$

5.  $b(x) = 2x^2 + 5$

3.  $h(x) = \sqrt{x - 7}$

6.  $d(x) = \sqrt[3]{5x + 2}$

Use composition of functions to prove the functions are inverses of each other.

7.  $f(x) = x^2 - 4$  and  $g(x) = \sqrt{x - 4}$

8.  $f(x) = 3x - 6$  and  $g(x) = \frac{1}{3}x + 2$