

**Find the inverse of each function.**

1)  $h(x) = \sqrt[5]{x} + 3$

2)  $f(n) = (n - 3)^3$

3)  $g(n) = \sqrt[3]{n} + 3$

4)  $h(x) = 2x^3 + 1$

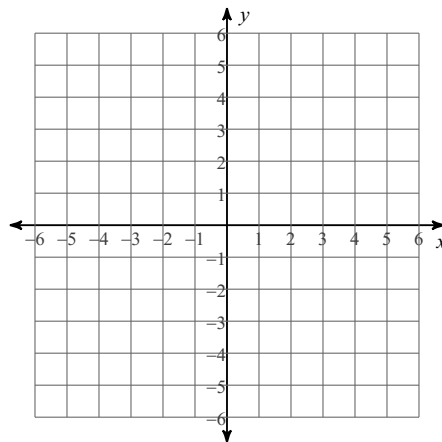
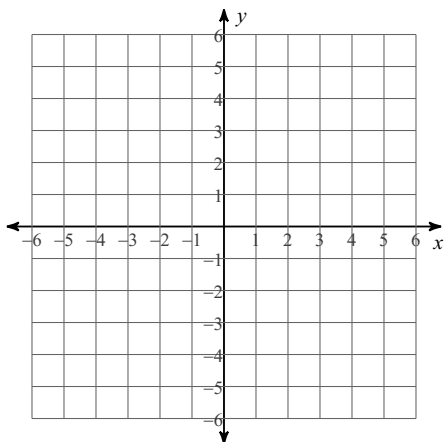
5)  $g(n) = -\sqrt[3]{n}$

6)  $f(n) = \sqrt[3]{n+1} - 1$

**Find the inverse of each function. Then graph the function and its inverse.**

7)  $g(x) = (x + 2)^3 - 3$

8)  $h(x) = \sqrt[3]{x-2} - 1$

**Solve each equation. Remember to check for extraneous solutions.**

9)  $x - 4 = \sqrt{x - 2}$

10)  $a - 2 = \sqrt{4a - 11}$

## Answers to

1)  $h^{-1}(x) = (x - 3)^5$

2)  $f^{-1}(n) = \sqrt[3]{n} + 3$

3)  $g^{-1}(n) = (n - 3)^3$

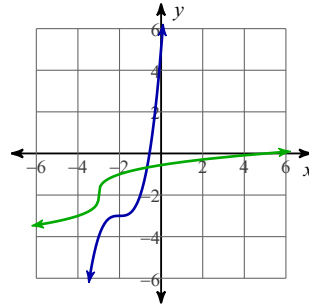
4)  $h^{-1}(x) = \sqrt[3]{\frac{x-1}{2}}$

5)  $g^{-1}(n) = -n^3$

6)  $f^{-1}(n) = (n + 1)^3 - 1$

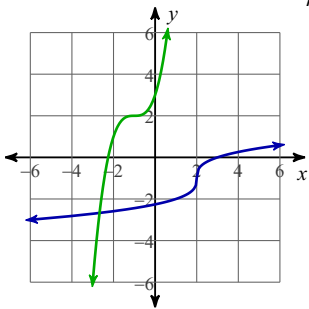
7)

$g^{-1}(x) = \sqrt[3]{x+3} - 2$



8)

$h^{-1}(x) = 2 + (x+1)^3$



9)  $\{6\}$

10)  $\{5, 3\}$