 Name_____

Function Inverses

Date_____ Period____

State if the given functions are inverses.

1) $g(x) = 4 - \frac{3}{2}x$

$f(x) = \frac{1}{2}x + \frac{3}{2}$

2) $g(n) = \frac{-12 - 2n}{3}$

$f(n) = \frac{-5 + 6n}{5}$

3) $f(n) = \frac{-16 + n}{4}$

$g(n) = 4n + 16$

4) $f(x) = -\frac{4}{7}x - \frac{16}{7}$

$g(x) = \frac{3}{2}x - \frac{3}{2}$

5) $f(n) = -(n + 1)^3$

$g(n) = 3 + n^3$

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

$g(n) = \frac{4 + \sqrt[3]{4n}}{2}$

7) $f(x) = \frac{4}{-x - 2} + 2$

$h(x) = -\frac{1}{x + 3}$

8) $g(x) = -\frac{2}{x} - 1$

$f(x) = -\frac{2}{x + 1}$

Find the inverse of each function.

9) $h(x) = \sqrt[3]{x} - 3$

10) $g(x) = \frac{1}{x} - 2$

11) $h(x) = 2x^3 + 3$

12) $g(x) = -4x + 1$

13) $g(x) = \dfrac{7x + 18}{2}$

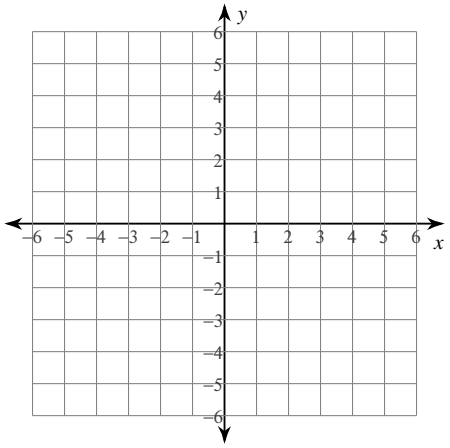
14) $f(x) = x + 3$

15) $f(x) = -x + 3$

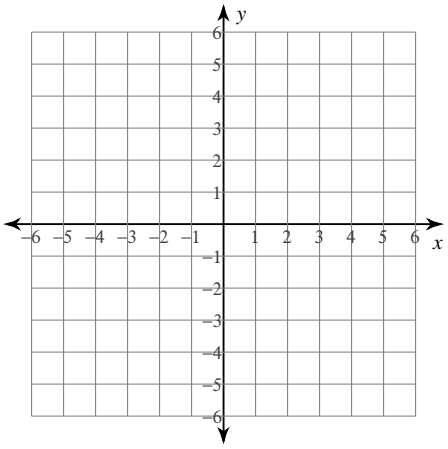
16) $f(x) = 4x$

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

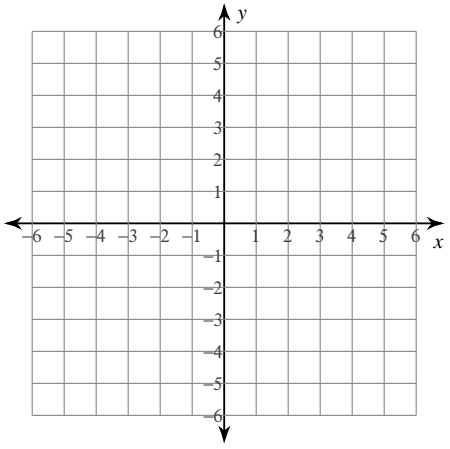
17) $f(x) = -1 - \dfrac{1}{5}x$



18) $g(x) = \dfrac{1}{x - 1}$



19) $f(x) = -2x^3 + 1$



20) $g(x) = \dfrac{-x - 5}{3}$