

Function Inverses

State if the given functions are inverses.

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

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

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

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

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

$$g(n) = 4n + 16$$

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

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

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

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

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

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

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

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

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

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

Find the inverse of each function.

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

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

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

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

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

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

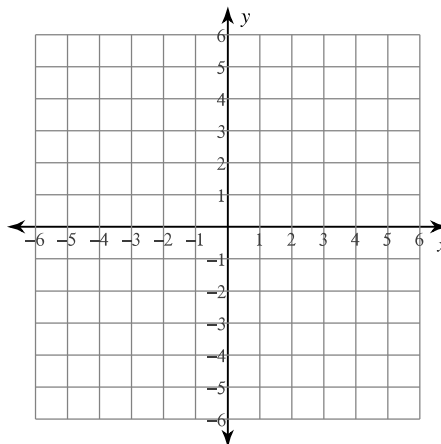
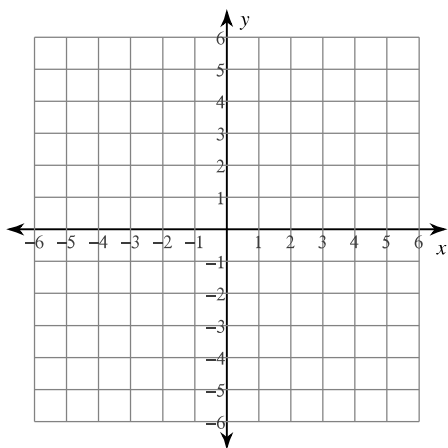
$$15) f(x) = -x + 3$$

$$16) f(x) = 4x$$

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

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

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



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

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

