

## Verifying Inverses

Date \_\_\_\_\_ Period \_\_\_\_\_

State if the given functions are inverses.

1)  $f(x) = -\frac{1}{6}x - \frac{10}{3}$   
 $g(x) = -6x - 20$

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

3)  $g(x) = 5 - \frac{5}{2}x$   
 $f(x) = \frac{12 + 7x}{4}$

4)  $g(x) = 4x - 5$   
 $f(x) = 4x + 5$

5)  $g(x) = -5x - 2$   
 $f(x) = -\frac{1}{5}x - \frac{2}{5}$

6)  $f(x) = \frac{20 + x}{5}$   
 $h(x) = 5x - 20$

$$7) \begin{aligned} g(x) &= 2 - x^5 \\ f(x) &= \sqrt[5]{-x + 2} \end{aligned}$$

$$8) \begin{aligned} f(x) &= \sqrt[3]{x + 2} \\ g(x) &= -2 + x^3 \end{aligned}$$

$$9) \begin{aligned} f(x) &= \frac{4}{x - 1} \\ g(x) &= \frac{4}{x} + 1 \end{aligned}$$

$$10) \begin{aligned} g(x) &= \sqrt[5]{x} \\ f(x) &= \sqrt[5]{-\frac{x}{2}} \end{aligned}$$

$$11) \begin{aligned} f(x) &= \frac{4}{x + 2} - 2 \\ g(x) &= \frac{2}{x} - 1 \end{aligned}$$

$$12) \begin{aligned} g(x) &= \frac{1}{x + 2} - 2 \\ f(x) &= \frac{2}{x} - 1 \end{aligned}$$