Math 2 Name_____

Unit 9.7 Inverse Functions PRACTICE

Period____

State if the given functions are inverses.

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

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

Yes

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

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

Yes

3) $f(x) = \frac{-5x-15}{7}$

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

No

4) $g(x) = (x+2)^5$

$f(x) = \sqrt[5]{x} - 2$

Yes

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

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

Yes

6) $f(x) = -\frac{1}{4}x$

$g(x) = \frac{x+5}{5}$

No

7) $f(x) = \frac{-x-4}{5}$

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

No

8) $g(x) = \frac{4}{7}x - \frac{20}{7}$

$f(x) = 5 + \frac{7}{4}x$

Yes

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

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

Yes

10) $f(x) = \frac{-x+4}{3}$

$g(x) = \frac{5x-15}{6}$

No

Find the inverse of each function.

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

$f^{-1}(x) = 2x - 2$

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

$f^{-1}(x) = \frac{4}{x-2} - 2$

13) $h(x) = 9x - 4$

$h^{-1}(x) = \frac{x+4}{9}$

14) $g(x) = \frac{-6 - \sqrt[5]{16x}}{2}$

$g^{-1}(x) = \frac{(-2x-6)^5}{16}$

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

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

16) $f(x) = \frac{-6x-7}{5}$

$f^{-1}(x) = \frac{-5x-7}{6}$

17) $f(x) = 5x + 20$

$f^{-1}(x) = -4 + \frac{1}{5}x$

18) $g(x) = \sqrt[5]{x} + 2$

$g^{-1}(x) = (x-2)^5$

19) $f(x) = \frac{6+7x}{3}$

$f^{-1}(x) = \frac{3x-6}{7}$

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

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

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

$f^{-1}(x) = -\frac{4}{x-2}$

22) $g(x) = (x-1)^3 - 2$

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

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

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

24) $g(x) = -2x^5 + 2$

$g^{-1}(x) = \sqrt[5]{\frac{-x+2}{2}}$