

Finding Inverses HW

Find the inverse of the following functions.

1. $f(x) = \frac{\sqrt{x-4}}{4} - 3$

2. $y = -\sqrt{x+3} + 1$

3) $f(x) = \frac{\sqrt[3]{x+4}}{5} + 3$

4) $f(x) = (x - 1)^2 - 4$

5) $f(x) = \frac{1}{7}x + 33$

6) $f(x) = \frac{x^2+4}{5} - 9$

7) $f(x) = \sqrt{x+2} - 3$

8) $f(x) = 32\sqrt[3]{3x+4} - 64$

9) $f(x) = \frac{(x-5)^3}{3} - 9$

10) $f(x) = 2x^3 - 18$

Verify that $f(x)$ and $g(x)$ are inverse functions of each other using $f(g(x))$ and $g(f(x))$.

11. $f(x) = 2x + 1$ and $g(x) = \frac{1}{2}x - \frac{1}{2}$

12. $f(x) = \frac{5-2x}{9}$ and $g(x) = -\frac{9}{2}x + \frac{5}{2}$