

6.2.35

$$f(g(x)) = f\left(\frac{x}{4} + 2\right) = 4\left(\frac{x}{4} + 2\right) - 8 = x + 8 - 8 = x;$$

$$g(f(x)) = g(4x - 8) = \frac{4x - 8}{4} + 2 = x - 2 + 2 = x.$$

6.2.55 I can start with $x = f(y)$ and solve for $y = f^{-1}(x)$:

$$x = f(y);$$

$$x = y^2 + 4, y \geq 0;$$

$$y^2 = x - 4, y \geq 0;$$

$$y = \pm\sqrt{x - 4}, y \geq 0;$$

$$y = \sqrt{x - 4};$$

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