Reading Outline, §1.3

Vocabulary/Definitions

- The relationship of the graph of $c \cdot f(x)$ to that of $f(x)$ ($c > 0$ and $c < 0$)
- The relationship of the graph of $f(x - h)$ to that of $f(x)$
- The relationship of the graph of $y - k$ to that of y
- How to determine the inner- and outer- functions in a composition
- Even and odd functions
- The meaning of f^{-1}
- When a function has an inverse
- The definition of f^{-1}
- The graph of f^{-1}

Understand

1. If $z(x) = \sqrt{15x - 7}$ is written as $z(x) = f(g(x))$, what are $f(x)$ and $g(x)$?

2. Consider the function $f(x) = 4(x - 1)^2$ for $x \geq 1$. Find the inverse function $f^{-1}(x)$. Sketch $f(x)$ and $f^{-1}(x)$.