MATH 1151 – Precalculus Supplemental Lab
Skill Builder – Week 3

NAME: _____ **SECTION:** _____

1. For parts (a)–(d), write an equation for the graph of $y = \sqrt{x}$ if it is to be transformed in the indicated ways (and indicated order).

   (a) Shifted left 2 units, shifted up 4 units, stretched vertically by a factor of 5.

   (b) Stretched horizontally by a factor of 7 and shifted up 1 unit.

   (c) Shifted up 5 units, shifted right 3 units, reflected about the y-axis.

   (d) Reflected about the y-axis and shifted left 2 units.

2. Determine if f is even, odd, both, or neither.

   (a) $f(x) = 2x^3 + 7x$

   (b) $f(x) = 3x^4 + 7x^2 + 1$

   (c) $f(x) = \dfrac{2x^3 + 7x}{x^5 + x}$

   (d) $f(x) = 2x^3 + 7x^2$

3. Find $g^{-1}(x)$ given that $g(x) = \dfrac{x-1}{x+3}$.