1. **(3 points)** Identify the domain of the following functions:

   (a) **(3 points)** $f(x) = \frac{4x}{x+2}$.

   (b) **(3 points)** $g(t) = \sqrt{t-3}$.

2. **(7 points)** For $f(x) = 2x^2$ and $g(x) = \frac{1}{3x+1}$, determine $f(g(x))$ and $g(f(x))$.

3. **(7 points)** Yoyodyne Industries' daily revenue is a linear function of the number of workers they have. When they have 50 employees, they make \$40000 daily; when they have 100 employees, their daily revenue is \$50000.

   (a) **(6 points)** Find the daily revenue as a function $f(x)$ of the number of workers x.

   (b) **(1 points)** What would their daily revenue be if they employed 60 people?

   (c) **(2 point bonus)** Using the back of the paper if necessary, construct a function $g(x)$ describing *per-worker* revenue as a function of the number of workers x.