Name: _____

Math 252 Calculus II (Bueler) Wednesday 24 January 2018

Quiz #2

In class. 25 minutes. No textbook or notes or calculator. 30 points total.

1. **(a)** (*3 pts*) Sketch the region R enclosed by the given curves:

$$y = x^2 - 4, \quad y = 0$$

(b) (*8 pts*) Find the area of R.

(c) (*8 pts*) Set-up but do not evaluate an integral for the volume of the solid obtained by rotating R around the x-axis. Use discs. (The integral is not hard to do, but save time by not doing it!)

2. **(a)** (*3 pts*) Sketch the region R enclosed by the given curves:

$y = \ln x, \quad y = 0, \quad x = 2$

(b) (*8 pts*) Find the volume of the solid obtained by rotating R around the y-axis. Use washers.