MATH 2300-016 QUIZ 5   Name: _____

1. An cylindrical gas tank lies 10 ft underground (its axis parallel to the ground). The tank has a radius of 4 ft and is 12 ft long. What is the work required to empty the tank (pump all the gas to the surface)? The weight of gasoline is 42 lb/ft^3.

2. Find the centroid of the region bounded by the curves

$$y = x, \ y = x^2 - 6.$$