Problem 1: A storage tank filled with a volatile liquid with density ρ is located so the top of the tank is 10 m below the ground. The tank, shown below, is conical with top width of 14 m and height 22 m. The tank is filled to a depth of 8 m. Set up completely as possible *but do not integrate* an integral to calculate the work required to empty the contents of the tank to the surface.