Let R be the region bounded by $y = 0$, $x = 4\pi$ cm, and $y = x + \sin(x)$ cm

1. Suppose that R has uniform density of 1 g/cm^2
   (a) Find the mass of R
   (b) Find the center of mass of R

2. Suppose that R has the density function $\rho(x, y) = x + 1$ g/cm^2
   (a) Find the mass of R
   (b) Find the center of mass of R