MATH 230 NAME:
5.1

Directions: Show all work on a separate sheet of paper for full credit.

1. Sketch the region enclosed the the given curves and find its area.
   (a) $y = 12 - x^2$ and $y = x^2 - 6$
   (b) $y = \sqrt{x-1}$, $x - y = 1$
   (c) $y = \cos(x)$ and $y = 2 - \cos(x)$ for $0 \leq x \leq 2\pi$
   (d) $x = y^2 - 1$, $x = \sqrt{y}$, $y = 0$, and $y = 1$
   (e) $y = x^4$ and $y = 2 - |x|$
2. Find the area of the triangle with the given vertices: (0,0), (3,1), and (1,2).