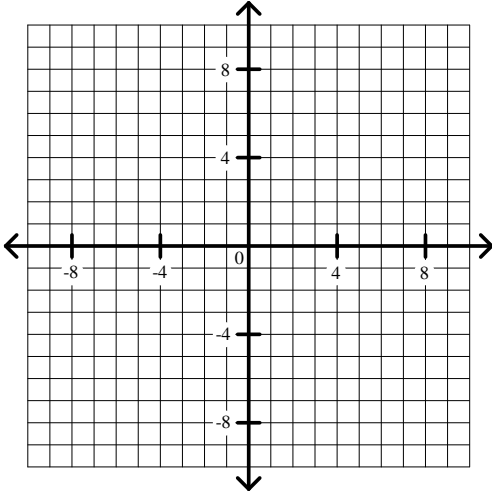# Calculus   Class Worksheet #4   Unit 3   _____
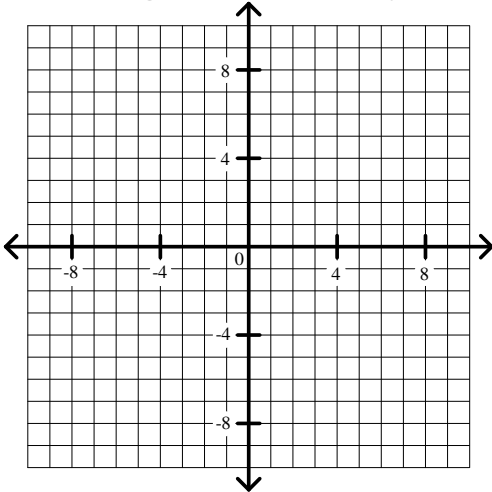
For each of the following problems you must
   a. **sketch a graph of the region described, and**
   b. **use calculus to find the area of the region (exact value).**

1. **the region bounded by the curve** $y = x^2$ **and the line** $y = x + 6$

2. **the region bounded by the curve** $y = 4 - x^2$ **and the line** $y = 2 - x$

3. **the region bounded by the curve** $y = x^2 - 2$ **and the curve** $y = 2 + 2x - x^2$