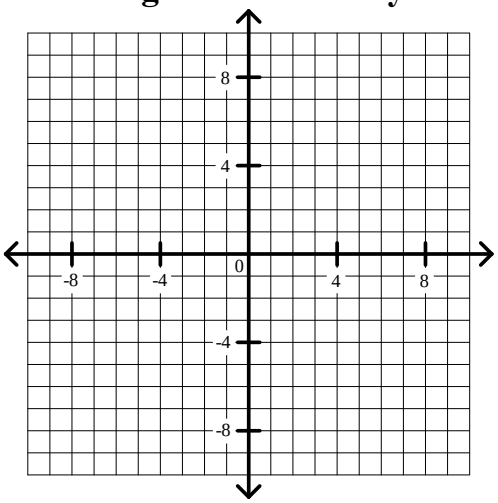
Calculus Worksheet #6 Unit 3 page 1 _____

For each of the following problems you must

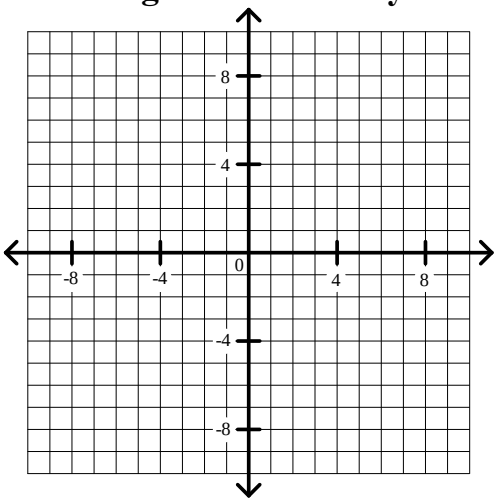
a. **sketch a graph of the region described, and**

b. **use calculus to find the area of the region (exact value).**

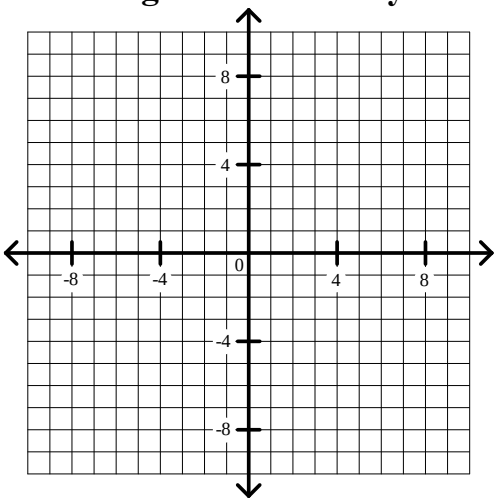
1. the region bounded by the curve $y = x^2$ and the line $y = x + 2$



2. the region bounded by the curve $y = 9 - x^2$ and the line $y = x + 3$



3. the region bounded by the curve $y = 4 - x^2$ and the curve $y = 8 - 2x^2$



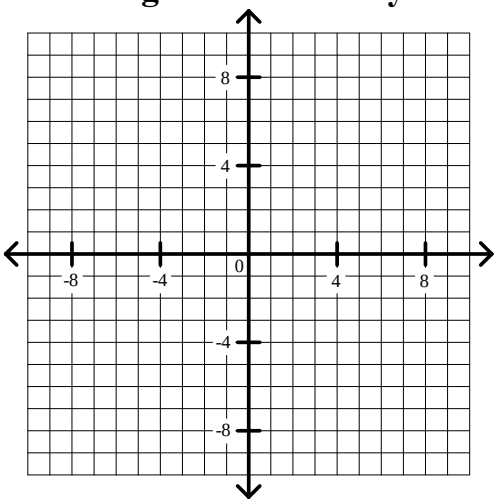
Calculus Worksheet #6 Unit 3 page 2

For each of the following problems you must

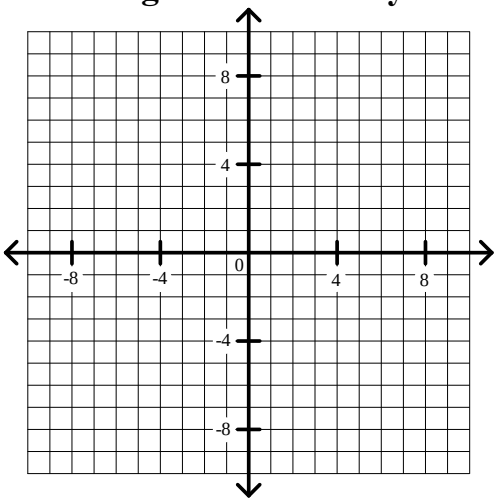
a. **sketch a graph of the region described, and**

b. **use calculus to find the area of the region (exact value).**

4. the region bounded by the curve $y = x^3$ and the line $y = 3x + 2$



5. the region bounded by the curve $y = x^2 - 4x + 3$ and the curve $y = -2x^2 + 5x + 3$



6. the region bounded by the curve $y = x^2 - 9$ and the curve $y = -2x^2 - 3x + 9$