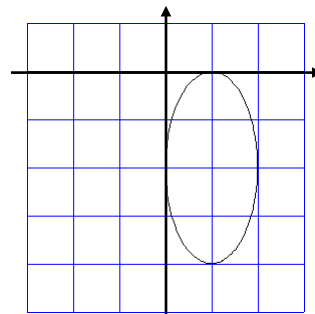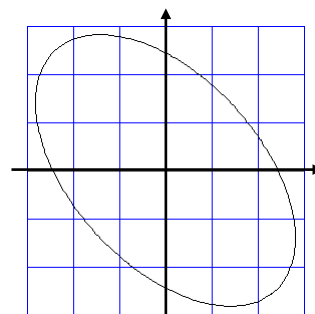AP Calculus
3.7 Worksheet

All work must be shown in this course for full credit. Unsupported answers may receive NO credit.

1. Find the points at which the graph of $4x^2 + y^2 - 8x + 4y + 4 = 0$ has a <u>vertical</u> tangent line. (Pretend the picture isn't there until *after* you have found the points!)

2. Find the point(s) (if any) of horizontal tangent lines: $x^2 + xy + y^2 = 6$
(Does your answer make sense given the picture to the right?)

3. Determine the slope of the graph of $3(x^2 + y^2)^2 = 100xy$ at the point (3, 1).
(Does your answer make sense given the picture to the right?)

Complete the following questions from the textbook: page 162 – 164: #1, 7, 17, 25 – 37 odd, 46, 55, 56