I A I returned Test #2B. Grades are posted on Blackboard.

B This is Calc II AND ANALYTIC GEOMETRY. — Do NOT neglect your geometry.

C We EXPLORED the GDB (Graph Data Base) functionality of the TI 83/84 series calculator.

D I shall write-up the transformation equations for $A'x'^2 + B'x'y' + C'y'^2 + D'x' + E'y' + F' = 0$ and post them when I get a chance.

II §10.4: Conics & Parametric Equations — The Cycloid (p. 693)

A Parametric Eqns. 

1 $x = t$, $y = t^2$, $t \in [0, 2\pi]$  

What is the graph? Technique: Eliminate the Parameter  

$\therefore y = t^2$, $y = x^2$. Graph is a parabola.

2 We did a lot of GRAPHING in class, and I wrote down nothing. I am now — after class — going to write down some of this material.

after class

3 We explored $[a] x = t$, $y = t^2$, $t \in [-99, 99]$  

$[b] x = t$, $y = t^2$, $t \in [-\pi, 2\pi]$  

$[c] x = -t$, $y = t^2$, $t \in [0, 2\pi]$  

$[d] x = t^2$, $y = t^4$, $t \in [0, 2\pi]$  

Here's one we didn't quite get to:  

$x = e^t$, $y = (e^t)^2$, $t \in [0, 2\pi]$.

4 And we had a "race" between $[b]$ and $[d]$ on the interval $t \in [0, \pi]$.

5 We also explored the UNIT CIRCLE  

$x = \cos(t)$, $y = \sin(t)$, $t \in [0, 2\pi]$.