## Problem Set 5 Calculus $1 \quad$ Due 7/22/04

You are encouraged to work in groups of two to four on this assignment and make a single group submission. Each problem is worth 5 points. For full credit indicate clearly how you reached your answer. All work must be legible and submitted on clean paper without ragged edges.

1. Do problem \#28 in §4.1.
2. Do problem \#34 in $\S 4.3$
3. Do problem \#6 in §4.5.
4. Do problem \#12 in §4.5.
5. Jon is planning to go to a movie and wants to pick the best seat. By "best seat" he means the seat where the angle formed by his eye and lines extending to the bottom and top edges of the screen is as large as possible. If the bottom edge of the screen is 12 feet above the floor, the top edge of the screen is 32 feet above the floor, Jon's eye (when seated) is 4 feet above the floor, and the floor is horizontal, how far from the screen should he sit to get the best viewing angle? Give your answer both as an exact value and to the nearest inch.
6. Do problem \#20 from the Chapter 4 Review.
