

Time: 1hr.

Dec.5. 2003

MATH 101
Quiz II

Name: _____

ID # : _____

Please circle your section number below:

Section 1: 8:00 TT, 3:00 W

Section 5: 9:00 MWF, 2:00 Th.

Section 2: 8:00 TT, 1:00 W

Section 6: 9:00 MWF, 11:00 Tu.

Section 3: 8:00 TT, 4:00 W

Section 7: 9:00 MWF, 3:30 Th.

Section 4: 8:00 TT, 12:30 Th.

Section 8: 9:00 MWF, 9:30 Th.

Instruction: Write all solutions and answers on this sheet.

| Problem | Grade |
|---------|-------|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| Total | |





1. Find $\frac{dy}{dx}$ for the following. Simplify your answers.

a) $y = \frac{2x^2 - 1}{3 - x^2}$

b) $y = \frac{1}{(5x^2 + 10)^{3/2}}$



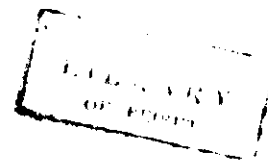
$$c) y = x \sin^4(1 + 3x)$$

$$d) y = \tan t + t^3 - 1; \quad x = t^4 + 2t - 3$$



2. $y = \cos x + \sec x$. Find $\frac{dy}{dx}$ at $x = \frac{\pi}{4}$.

3. $y = x^2 + 5x$, and $x = (t+1)^{1/3}$. Find $\frac{dy}{dt}$ at $t = 0$.



4. Find an equation for the tangent to the graph of the curve $xy + y^2 = 4$ at the point $(0,2)$.