

MAT 195 – Spring Quarter 2002
TEST 3

NAME _____

Show work and write clearly.

For #1-12, choose only 10 and find y'. Simplify.

1. $y = \frac{e^x}{1+x^2}$

2. $y = \sec x - 2 \cos x$

3. $y = x \sin x \cos x$

4. $y = \sin(e^x)$

5. $y = \sin^2(\cos(kx))$

6. $y = \sqrt{1+2 \tan x}$

7. $\sqrt{x+y} + \sqrt{xy} = 6$

8. $y = (\tan^{-1} \sqrt{x})^2$

9. $y = x^{1/x}$

10. $x \cos y + y \cos x = 1$

11. $y = \ln(\csc(5x))$

12. $y = 5^{x \tan x}$

For #13-16, choose only 3 and find y'.

13. $y = \cos(\ln x)$

14. $y = e^{-5x} \cos(3x)$

15. $y = \frac{x^2 - x - 2}{x + 2}$

16. $y = e^x \sqrt{x}$