Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evaluate the indefinite integral (Solve 8 out of 9. Write OMIT below the problem you choose to omit).

1.  2. 3.

4. 5.  6.

7. 8.  9.

For 10-12, evaluate the integral given that .

10. 11. 12.  13. Find the average of f(u) from 1 to 6

14. If . 15. Find .

In 16 & 17, solve the differential equation.

16. If , find the family of solutions for T(x).

17. Find the particular solution given the initial condition that T(1)=0.

18. Find the area of the region formed by intersecting. (If it helps, draw a picture illustrating this region. Label the intersection points.)

19. Find any extrema (max and min) and the intervals of increasing or decreasing for y=x-3lnx.

Evaluate the integral (Give EXACT answers. Solve 2 out of 3. Write OMIT below the problem you choose to omit.)

20. 21.  22.

Find the derivative. (Solve 4 out of 5. Write OMIT below the problem you choose to omit)

23. y= 24.  25. 

26. Use logarithmic differentiation to solve . 27. y=



Evaluate

28. 