



Preview

4/12/2009 JL

Subject: Notes on Problems in [165testthreesample2009.pdf](#)

1. Not CC - compounded quarterly
4. The correct answer $(\ln 9)/3$ can be written as $\ln 3$
8. Profit can be written as $(p-10)q = 200(p-10)\exp(-0.03p)$
9. "consumer expenditure" means "Revenue" = $p \cdot q$
10. Use "ln rules" to simplify before differentiation. No correct answer given. Correct answer is $5/(x \ln(x))$.
11. $f(x) = e^{(x^5)}$. Answer a bit messy - use that $6^5 = 7776$.
14. Now that we have FTC, the solution of the initial value problem (IVP) can be done two ways:
 - Antiderivative and solve for C using $F(0) = 2$
 - $F(x) = 2 + \text{fnInt}(3t^2 + 1, t, 0, x)$ (Discussed in Class 4/12)
17. Read the integrand as $9x^7 + x + 8$
18. Any substitution is "valid," the one that helps is $u = 4 - 2t$.
23. Not a simple substitution like $u = Ax + B$, but still a simple substitution. The integral of $\sqrt{x^2+9}$ [without the x outside] is MUCH harder.
26. Careful on units! 600 means $q = 3$. Somewhere you must multiply by 6000 to get dollars .
27. Draw the graph. there are really two regions enclosed. Calculate each area and add the results. Not on TestThree.
29. Looks like two regions again unless you note that $x \geq 0$.
30. Need to solve $21 = \text{Demand}(p)$.

31. I got \$3005.

Sunday, April 12, 2009 9:26:40 PM CDT

