Assignment #2
–due Tuesday, February 2

Please complete the following problems, with changes as indicated:

• 1.5.3) Change both 3’s to 5’s.
• 1.5.7) Change the 10 to 100.
• 1.5.17) Change $\cos x$ to $\sin x$.
• 1.5.24) Change the initial condition to $y(0) = \frac{2}{3}$.
• 1.5.29) Change the equation to $\frac{dy}{dx} - 2xy = 2$.
• 1.5.33) Change 100 kg to 200 kg.
• 1.5.37) Change 400-gal to 256-gal.

For the last two problems, change the instructions to the following: Apply Euler’s method twice to approximate to this solution on the interval $[0, 1]$, first with step size $h = 0.5$, then with step size $h = 0.2$. Compare the three-decimal-place values of the two approximations at $x = 1$ with the value $y(1)$ of the actual solution.

• 2.4.1)
• 2.4.9)