MATH 6 – RECITATION WORKSHEET 2
10 FEBRUARY 2012

1. Find the area of the region bounded by the x-axis, the y-axis and the function $f(x) = -x^2(x^3+1)^2+4$.

2. Suppose a car moves with velocity $v(t) = t^2e^{t^3}$ miles per hour from time $t = 1$ to $t = \frac{3}{2}$. How far does the car go in this half hour?

1. Find the area under the curve defined by $f(x) = (e^x + e^{-x})^2$ from -1 to 1.

2. Oil leaks from a storage tank at a rate of $\frac{30t^2}{(t^3+2)^2}$ gallons per hour from starting at 12 noon. How much oil is lost from noon to 3pm?