Math 101 – WORKSHEET 7 SUBSTITUTION, AREA BETWEEN CURVES

(1) Evaluate the integrals (a) (Final, 2013) $\int_1^3 (2x-1)e^{x^2-x} dx =$

(b) (Final, 2012) $\int_0^3 (x+1)\sqrt{9-x^2} \, \mathrm{d}x =$

Date: 18/1/2016, Worksheet by Lior Silberman. This instructional material is excluded from the terms of UBC Policy 81.

- (2) Area between curves
 - (a) (Final, 2011) Find the total area of the finite place region lying between the curves y = x and $y = x^3$.

(b) (Final, 2014) Find the area of the finite region bounded between the two curves $y = \sqrt{2} \cos(x\pi/4)$ and y = |x|. It will be useful to sketch the region first.