Math1210 Quiz 13 (5.1, 5.2, 5.3) Summer, 2015 Kelly MacArthur

Name _____ Date _____

Instructions: Please show all of your work as partial credit will be given where appropriate, **and** there may be no credit given for problems where there is no work shown. All answers should be completely simplified, unless otherwise stated.

1. (10 points) Find the area of the region bounded by the curves $y=x^2$ and $y=2x-x^2$.

Area: _____

2. For this problem, **just set up the following volume integrals**. (You do NOT need to evaluate the integrals.)

(a) (10 points) The solid generated by revolving about the x-axis the region, above the x-axis, bounded by $x^2+\frac{y^2}{4}=1$.

Answer : _____

(Note: This is #2 continued.)

2. For this problem, **just set up the following volume integrals**. (You do NOT need to evaluate the integrals.)

   (b) (10 points) The solid generated by revolving about the y-axis the region bounded by $y=\sqrt{2+x^2}$, the x-axis, $x=1$ and $x=2$.

Answer : _____

(c) (10 points) The solid generated by revolving about the line x = 1 the region bounded by $y=x^2$, $x=1$, $x=2$ and $y=x$.

Answer : _____