King Fahd University of Petroleum and Minerals
Math. & Stat. Department
142-Math 102 Quiz (2)

Name	ID	SEC 21

Q1) Find the area of the region enclosed by the graphs of $y = 3x^2 - 8$ and $y = x^2$.

Q2) Write down an integral that gives the volume of the solid generated by revolving the region bounded by $x = \sqrt{y}$ and the lines $x = 2$ and $y = 0$ about the line $x = 3$.
Do not evaluate the integral.

Q3) Use the cylindrical shell method to write down an integral that gives the volume of the solid generated by revolving the region bounded by $y = \frac{1}{x}$, $y = x^2$ and $x = 1/2$ about the y-axis. **Do not evaluate the integral.**