King Fahd University of Petroleum & Minerals
Department of Mathematics and Statistics
Math 102 Sec# 3, Quiz # 3 (sections 6.3-7.2), Semester 183

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Name: Student ID#: SR#

Q1) Find the average value of the function $f(x) = x\sec(2x)\tan(2x)$ on the interval $\left[0, \frac{\pi}{8}\right]$.

Q2) Evaluate the integral $\int \frac{\cot^3 x}{\sin^2 x} dx$

Q3) **Set up** the integral that is used to find the volume of the solid generated by rotating the region enclosed by the curves $y = 4x - x^2$ and $y = x$ about $x = 7$. Use the cylindrical shells method.