King Fahd University of Petroleum and Minerals
Department of Mathematical Sciences
Math 102-10 (calculus II)
Quizzes 2-4 (Take Home) Semester II, 2005-2006 (052)

Name:..... **ID** ♯..... **Serial**♯.....

(1) Find the area of the surface generated by revolving the parametric curve $x = \sinh^2 t$, $y = \cosh^2 t$, $0 \leq t \leq 2$ about the y-axis. (7.5 & 7.8) (Quiz 2)

(2) Evaluate each of the following (Sec. 8.1) (Quiz 3)
(i) $\int (4-2x)^5 dx$ (ii) $\int x \sin(x^2) dx$ (iii) $\int \sinh^2 x \cosh x dx$ (iv) $\int x 6^{x^2} dx$.

(3) Evaluate each of the following (Sec. 8.2) (Quiz 4)
(i) $\int x e^{5x} dx$ (ii) $\int x^2 \sin 2x dx$ (iii) $\int 3x \ln(2x) dx$ (iv) $\int \sin^{-1}(5x) dx$.

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