CALCULUS I

FINAL EXAM
30/12/2014

X Solve just **four** questions.

1) If $y = \int_{x}^{e} \sin(x-u)\, du$ find $\dfrac{dy}{dx}$.

2) Evaluate $\displaystyle\int \dfrac{dx}{x^4 + x}$

3) Evaluate $\displaystyle\int_{-2}^{2} x \cdot e^{(x)^4}\, dx$

4) The triangular region with the vertices $(1,1)$, $(1,2)$, and $(2,2)$ is rotated about y-axis, find the volume of generated solid.

5) Find the length of the curve $y = \sqrt{4-x^2}$ for the given interval $0 \leq x \leq 1$.

GOOD LUCK...   60 min.

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