

MATH 3B

Discussion Worksheet - Thursday, May 3

Work Problems:

· Force: $F =$

-Note:

· Work: $W =$

· Work to Move a Particle:

Function Averages:

· Formula: Average of the function $f(x)$ on $[a, b]$ is given by

Integration By Parts:

· GOAL:

· Formula: $\int U dV =$

· Strategies:

You Try! For each of the following problems: (1) Determine if it is a IBP problem and if it is, (2) Identify U and dV :

(1) $\int \cos(x) \sin^2(x) dx$

(2) $\int x^2 \ln(x) dx$

(3) $\int \arctan(4x) dx$