

MA 112 - Calculus II
Worksheet #2 additional table
Professor Broughton

Name: _____

Box #: _____

Numerical integration different example

1. Let $f(x) = x^4 - 3x + 5$. Calculate the Trapezoidal and Simpson's approximations and their errors in the table below.

n	T_n	S_n	ET_n	ES_n
4	11.06250000	10.41666667	.66250000	.01666667
8	10.56640625	10.40104167	.16640625	.00104167
16	10.44165039	10.40006511	.04165039	.00006511
32	10.41041565	10.40000407	.01041565	.00000407
128	10.40065104	10.40000002	.00065104	.00000002
1024	10.40001017	10.40000000	.00001017	.00000000