Math 1B Quiz 8

Thu Dec 3, 2015

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NAME YOU ASKED TO BE CALLED IN CLASS:

SCORE: ____ / 30 POINTS

	THIS QUIZ IS DUE ON THU DEC 10, 2015 @ 1:45pm SHARP (NO LATES ACCEPTED). YOU WILL SCORE 0 POINTS AFTER THAT TIME. YOU MAY E-MAIL ME A CLEAR READABLE SCAN OR PHOTO OF THE COMPLETED QUIZ NO LATER THAN WED DEC 9.
	Sign below to confirm that the work shown on this quiz is strictly your own work. You may have consulted your textbook and your notes, but you did NOT consult other people, websites, software or any other sources of help.
SIGNA	ATURE:

Use the table of integrals in the back of the textbook to evaluate $\int \frac{\sqrt{5-4e^{6x}}}{e^{6x}} dx$.

SCORE: / 6 PTS

List the numbers next to the rules you used, and the values of all constants in the rules you used.

Your solution may also involve u – substitution, but must not involve any other integration techniques from sections 5.4-5.5 or 7.1-7.4.

If $y' = y^2 + 2x$ and y(-1) = -2, use Euler's method with step size 0.5 to estimate y(1). SCORE: _____ / 6 PTS Show all intermediate calculations used, and all intermediate y-values found.

Find the solution of the differential equation $y' = xy \ln y$ which satisfies the initial cond	ition $y(1) = \frac{1}{e}$.	SCORE:	/ 8 PTS
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You want to approximate
$$\int_{-1}^{2} xe^{2x} dx$$
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SCORE: ____ / 10 PTS

[a] Find S₆. Round your final answer (but not your intermediate calculations) to 4 decimal places.
Show the calculation used to get your answer. (You can use exponential notation for this step, ie. e^{some number}).

[b] Use the error bound formula to find the maximum error if you were to find M_8 . NOTE: Do NOT find M_8 .

[c] Use the error bound formula to determine a value of n for which the Trapezoidal Rule will give an approximation that is within 0.001 of the actual value of the integral.