

Answer sheet: Interpolation and Quadrature

NAME

Part I. Preparatory exercises

EXERCISE 1

EXERCISE 2

EXERCISE 3

Part II. Computer lab

EXERCISE 1

(Attach code)

Estimated order of accuracy using	
trapezoidal rule for I_1 :	Simpsons rule for I_1 :
trapezoidal rule for I_2 :	Simpsons rule for I_2 :

EXERCISE 2

Number of function evaluations required to evaluate I_1 and I_2 respectively:
Why are these numbers so different?

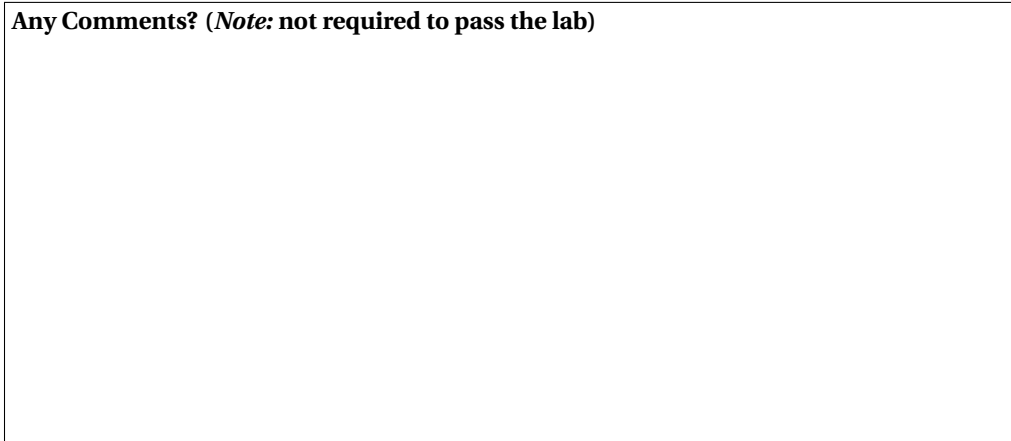
EXERCISE 3

(attach plots)

Comments (similarities/differences between the resulting polynomials for various N):
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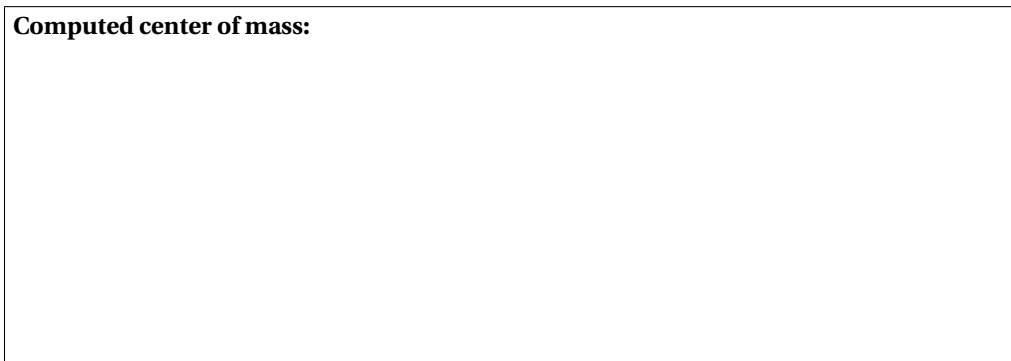
EXERCISE 4
(attach plot)

Any Comments? (Note: not required to pass the lab)



EXERCISE 5
(attach code)

Computed center of mass:



COMMENTS ON LAB

Fun/boring, easy/difficult, suggestions for improvement:

