# Output:

[PASTE OUTPUT FROM COMPLETED VERSION OF A2Q3TestIntegral HERE]

Here is Q3 a

Results for integral of example function from 6.0 to 8.0:

Method Converged? Loops Result

====== ========== ===== ======

Rectangle true 18 3.499998092651367

Trapezoid true 1 3.5

Simpsons true 20 3.5000022252400718

Here is Q3 b

Results for integral of example function from 0.0 to 8.0:

Method Converged? Loops Result

====== ========== ===== ======

Rectangle true 2 32.0

Trapezoid true 11 29.86666259765625

Simpsons true 20 29.866691080913924

Here is Q3 c

Results for integral of example function from 0.0 to 2.0:

Method Converged? Loops Result

====== ========== ===== ======

Rectangle true 20 3.141594559843255

Trapezoid true 13 3.1415910675496996

Simpsons true 20 3.1415948555785747

Here is Q3 d function 1

Results for integral of example function from 0.0 to 3.141592653589793:

Method Converged? Loops Result

====== ========== ===== ======

Rectangle true 20 0.057412582810969566

Trapezoid true 5 0.05741263131476094

Simpsons true 20 0.057412674061836366

Here is Q3 d function 2

Results for integral of example function from 0.0 to 2.718281828459045:

Method Converged? Loops Result

====== ========== ===== ======

Rectangle true 21 0.6226750463184003

Trapezoid true 11 0.6226747341830048

Simpsons true 19 0.6226752347056386

Here is Q3 d function 3

Results for integral of example function from 0.0 to 3.141592653589793:

Method Converged? Loops Result

====== ========== ===== ======

Rectangle true 20 1.0606331452259994

Trapezoid true 13 1.0606334590818143

Simpsons true 20 1.0606346192761387

# Questions:

Based on your results above, which integration rule is the most efficient?

[CHOOSE ONE: Rectangle rule, Trapezoid rule, Simpson’s rule]

Anwser: I think trapezoid method is the most efficient one.

Explain your answer.

[EXPLAIN HOW YOU MADE YOUR CHOICE]

Because the trapezoid method requires fewer refinement loops while maintaining similar accuracy.