

HW1

Evaluate

$$\int_0^\infty \frac{\sin x}{x} = \frac{\pi}{2} = 1.570796$$

and

$$\int_0^\infty \frac{t}{t+1} e^{-t} = 0.403653$$

by any two of the three numerical methods that we've studied (trapezoidal, “ $\frac{1}{3}$ ” Simpson, and 4-point Gaussian). The desired accuracy is 5 digits after the decimal point (3.15708 and 0.40365, respectively).

The program should be sent to phys420@cox.net (cc to ibalitsk@odu.edu) by 4 p.m. next Thursday (Oct 9).