

1. Evaluate S_6 to approximate $\int_{-1}^1 e^{-x^2} dx$
2. How accurate is your value above?
3. For what value of n does S_n approximate $\int_{-1}^1 e^{-x^2} dx$ to within 0.0001?
4. Repeat the three question above but with $\int_0^{\pi} \sin x dx$
5. Answer questions #10,17,19,22 in section 7.7 of your text.