

Problem 14, Section 6.3

Estimate the area under the curve  $f(x) = 4 - x^2$  on  $[-1, 2]$  using six subintervals and left endpoints.

$$A \approx (0.5)(f(-1) + f(-0.5) + f(0) + f(0.5) + f(1) + f(1.5)) = 9.625.$$