

(1) See text (p294) # 15. Estimate $\int_0^3 f(x)dx$ for the following data:

x	0	0.5	1.0	1.5	2.0	2.5	3.0
$f(x)$.3	.8	1.4	1.9	2.1	1.4	.7

(1a) Use the trapezoid rule with $\Delta x = 0.5$

(1b) Use Simpson's Rule with $\Delta x = 0.5$

(2) An object is placed along the x - axis from $x = 0$ to $x = 4$. For each x the cross-section is an equilateral triangle with side length x . Calculate the total volume of the object.