(7.) (8 points) The following is a table of values of a continuous function f:

x	0	20	40	60	80	100
$f(x)$	1.2	2.8	4.0	4.7	5.1	5.2

(a) Use a left-hand sum with five intervals to estimate the definite integral $\int_0^{100} f(x)\, dx$. Show your work.

(b) Assuming that f is monotonic (i.e., always increasing or decreasing on the interval), how many intervals must you use to guarantee that the left hand sum is within .1 of the actual value of the integral?

(c) Given the information you have, is your left-hand sum an underestimate or an overestimate? Explain.