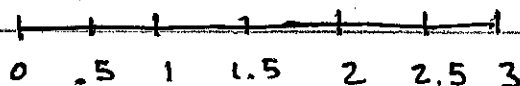


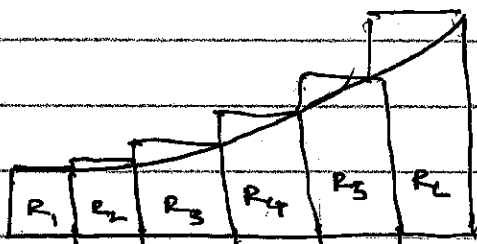
Practice Problem Key

1. $f(x) = x^2 + 1$ $[0, 3]$

a) $h = \frac{3-0}{6} = \frac{1}{2}$



b)



c) $A \approx .5 [f(.5) + .5f(1) + .5f(1.5) + .5f(2) + .5f(2.5) + .5f(3)]$
 $= .63 + 1 + 1.63 + 2.5 + 3.63 + 5 = 14.38$

d) $A = \int_0^3 x^2 + 1 \, dx$

2

a) -5

b) $-5 + 3 = -2$

c) $-5 + 3 + 2 + 4 = 4$

d) $3 + 2 + 4 - 4 = 5$

e) 4

f) $4 - 4 = 0$