HW 6.1 p. 270 11, 12, 22, 25, 30

Thursday, January 15, 2015 12:13 PM

(11) RRAM$_3$

x	f(x)
0	
1	3
2	5
3	9

$\Delta x = 1$

$= 1(3) + 1(5) + 1(9) = \boxed{17}$

(12) LRAM$_4$

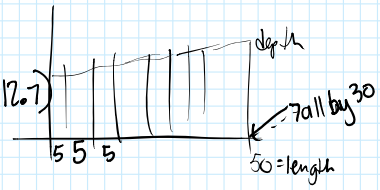
x	f(x)
1	
1.5	$\frac{1}{1.5}$
2	$\frac{1}{2}$
2.5	$\frac{1}{2.5}$
3	$\frac{1}{3}$

$\Delta x = .5$

$= .5\left(\frac{1}{1.5}\right) + .5\left(\frac{1}{2}\right) + .5\left(\frac{1}{2.5}\right) + .5\left(\frac{1}{3}\right)$

$= \boxed{.95}$

(25) (a) LRAM



Vol $= 30(5)(6 + 8.2 + 9.1 + \ldots 12.3 + 12.7)$

$= \boxed{15,465\ ft^3}$

(b) RRAM

Vol $= 30(5)(8.2 + 9.1 + \ldots 12.3 + 12.7 + 13)$

$= \boxed{16,515\ ft^3}$

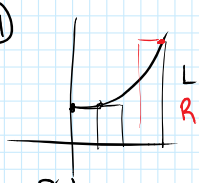
(22) (a) LRAM$_5$: $1(32 + 19.41 + 11.77 + 7.14 + 4.33) = 74.65$ ft/sec

(b) RRAM$_5$: $1(19.41 + 11.77 + 7.14 + 4.33 + 2.63) = 45.28$ ft/sec

(c) 1st sec: speed = 32 ft/s 2nd sec: $32 + 19.41$, speed = 51.41 ft/s 3rd sec: $32 + 19.41 + 11.77$, speed = 63.18 ft/s

dist traveled $= 1(32 + 51.41 + 63.18) = \boxed{146.59\ ft}$

(30) (a)



5 hours

upper = RRAM : $1(70 + 97 + \ldots 190 + 265) = \boxed{758\ gal}$

lower = LRAM : $1(50 + 70 + \ldots 190) = \boxed{543\ gal}$

(b) 8 hours

upper = RRAM : $1(70 + \ldots 720) = 2363$ gal

lower = LRAM : $1(50 + \ldots 516) = 1693$ gal

(c) $25000 - 2363 = \frac{22637}{720} = 31.440$ hours

OR $25000 - 1693 = \frac{23,307}{720} = 32.371$ hours