

5.1

19) LH  $.001 (0 + 40 + 62 + 82 + 96 + 108 + 116 + 125 + 132 + 137) = .898$

RH  $.001 (40 + 62 + 82 + 96 + 108 + 116 + 125 + 132 + 137 + 142) \approx 1.040$

(a)  $\frac{.898 + 1.040}{2} \approx .969 \text{ miles}$

(b)  $\frac{.969}{2} = .485 \checkmark$

LH  $.001 (40 + 62 + 82 + 96 + 108 + 116) \quad .006 \text{ hours}$

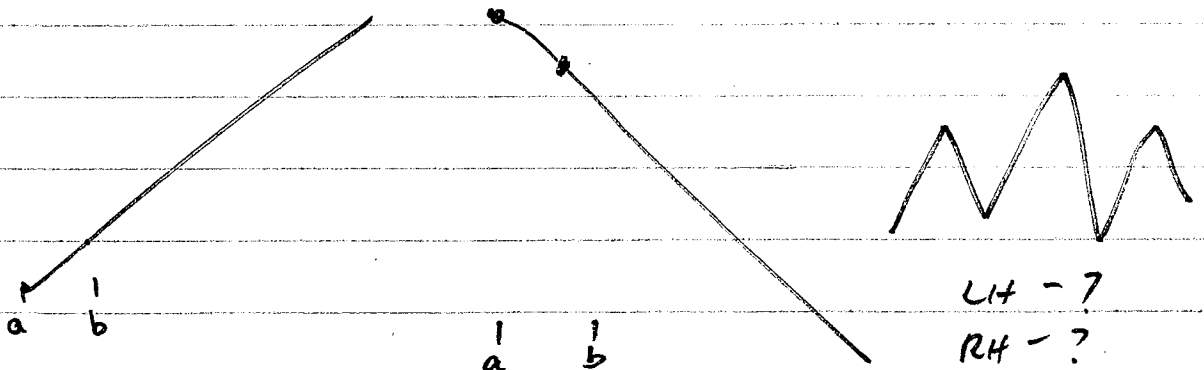
RH  $.001 (40 + 62 + 82 + 96 + 108 + 116) \quad 116 \text{ mph}$

27)  $v(t) = 400 - 32t$  400

(a)  $v(5) = 400 - 32(5) = 240 \text{ ft/sec}$  1, 2, 3, 4, 5

(b)  $[0, 5], n=5 \quad \frac{5-0}{5} = 1$

RH  $1 (368 + 336 + 304 + 272 + 240) = \boxed{1520 \text{ ft}}$

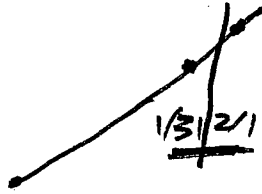


LH - LOWER  
RH - UPPER

a b  
LH - UPPER  
RH - LOWER

LH - ?  
RH - ?

5.1



29 | (a) UPPER (RH)  $\rightarrow 30 \begin{matrix} J & F & M & A \\ (.2 & .25 & .27 & .34 & .45 & .52) \end{matrix} \approx 60.9$  tons

$\rightarrow$  LOWER (LH)  $\rightarrow 30 \begin{matrix} J & F & M & A \\ (.05 & .2 & .25 & .27 & .34 & .45) \end{matrix} \approx 46.8$  tons

(b)  $\begin{matrix} J & F \\ 30(.05 & .2) \end{matrix}$

27 |



5.1

27 | (a)  $400 \text{ ft/sec} - 32(5) = 240 \text{ ft/sec}$

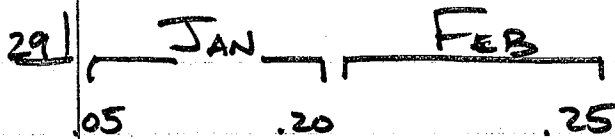
(b)  $v(t) = 400 - 32t$

$\frac{5-0}{5} = 1$

0      1      2      3      4      5

400    368    336    304    272    240

R-H sum  $| (368 + 336 + 304 + 272 + 240) = 1520 \text{ ft}$



$30 (.20 + .25 + .27 + \dots + .52) = 205.8 \text{ tons}$   
 $60.9 \text{ tons}$

$30 (.05 + .20 + .25 + .27 + .34 + .45) = 46.8 \text{ tons}$

3 |  $v(t) = t^2 + 1$        $\frac{4-0}{4} = 1$

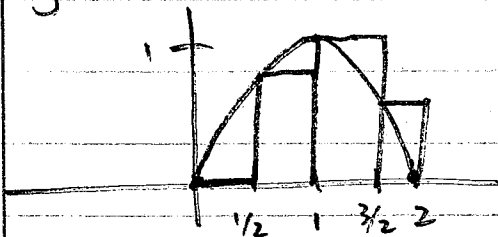
0 ~~1~~ 1.25 2.25 3.25 4

$1 (1.25 + 3.25 + 7.25 + 13.25)$

1.25    3.25    7.25    13.25

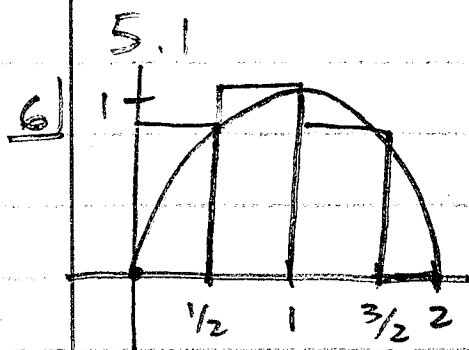
25

5 |  $y = 2x - x^2$      $[0, 2]$      $\frac{1}{2} (0 + \frac{3}{4} + 1 + \frac{3}{4}) = \frac{5}{4}$



$2(\frac{1}{2}) - (\frac{1}{2})^2$

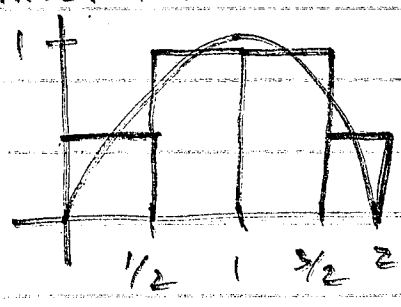
$2(\frac{3}{4}) - (\frac{3}{4})^2$   
 $3 - \frac{9}{4}$



$$\frac{1}{2} \left( \frac{3}{4} + 1 + \frac{3}{4} + 0 \right) = \frac{5}{4}$$

$$R=4$$

MIDPOINT



$$2 \left( \frac{1}{4} \right) - \left( \frac{1}{4} \right)^2$$

$$\frac{1}{2} (.4375 + .9375 + .9375 + .4375)$$

$$1.375$$

- 28 (a)  $1(50 + 70 + 97 + 136 + 190) = 543$  gallons  
 $1(70 + 97 + 136 + 190 + 265) = 758$  gallons

- (b)  $1(50 + \dots + 190) + 1(265 + 369 + 516) = 1693$  gal  
 $1(70 + \dots + 265) + 1(369 + 516 + 720) = 2363$  gal

WORST CASE  
 (c) 25,000  
 = 2,363

BEST CASE  
 25,000  
 = 1,693

$$\frac{22,637}{720} \approx 31.44 \text{ hours}$$

$$\frac{23,307}{720} \approx 32.37 \text{ hr}$$

5.1

$$\underline{19/6)} L-H \text{ sum } .001 (0 + 40 + 62 + 82 + \dots + 137) = .898$$

$$R-H \text{ sum } .001 (40 + 62 + 82 + 96 + \dots + 142) = 1.04$$

AVG .969 MILES

(b) .4845

.005 - .006