

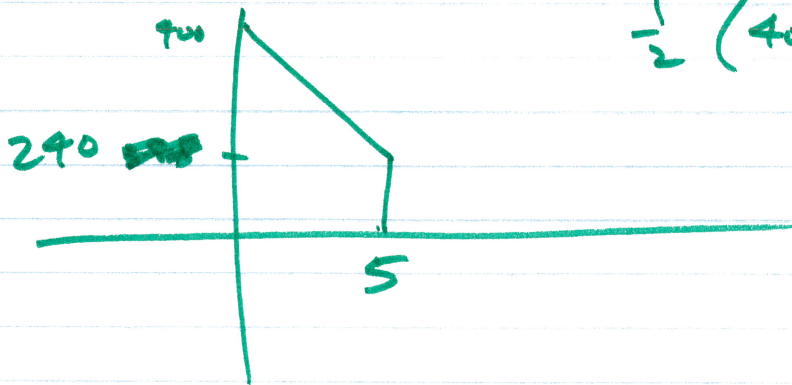
5.1

(19)  $44.8 \text{ (mg/L)} \cdot \text{sec}$

$$\frac{5 \text{ mg}}{44.8 \frac{\text{mg} \cdot \text{sec}}{\text{L}}} \cdot \frac{5 \text{ mg}}{1} \cdot \frac{1 \text{ L}}{44.8 \text{ mg} \cdot \text{sec}} \cdot \frac{60 \text{ sec}}{1 \text{ min}}$$

6.896 L/min

(27) b  $y = 400 - 22t$



$$\frac{1}{2} (400 + 240) 5$$

t	0	1	2	3	4	5
v(t)	400	<del>378</del>	<del>356</del>	<del>334</del>	<del>312</del>	<del>290</del>

JAN 1	JAN 30	FEB 30	MAR 30
NEW FILTER	SAME FILTER	LESS	LESS
.05	.20	.25	.27

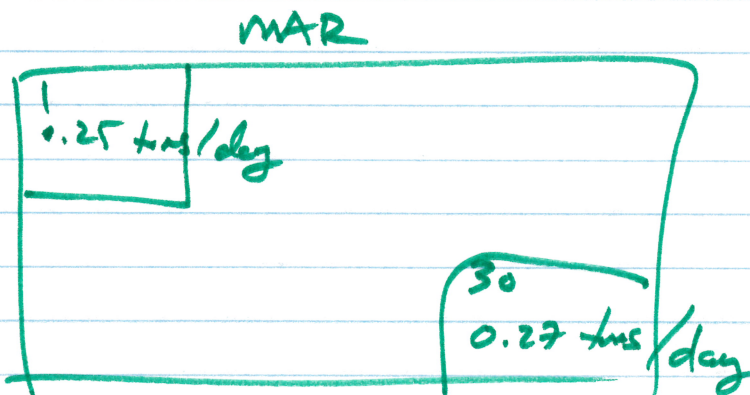
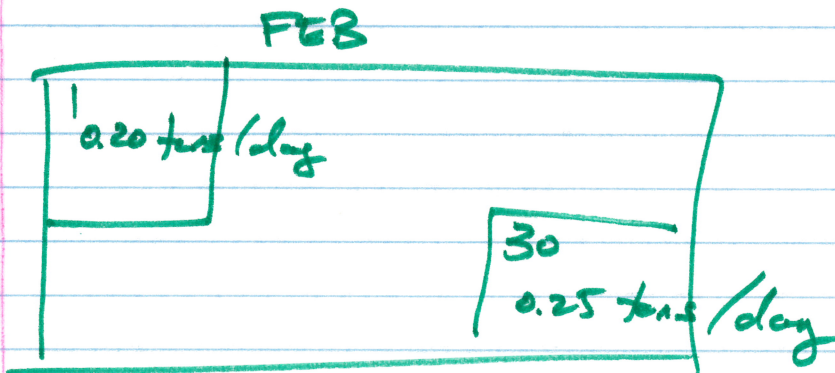
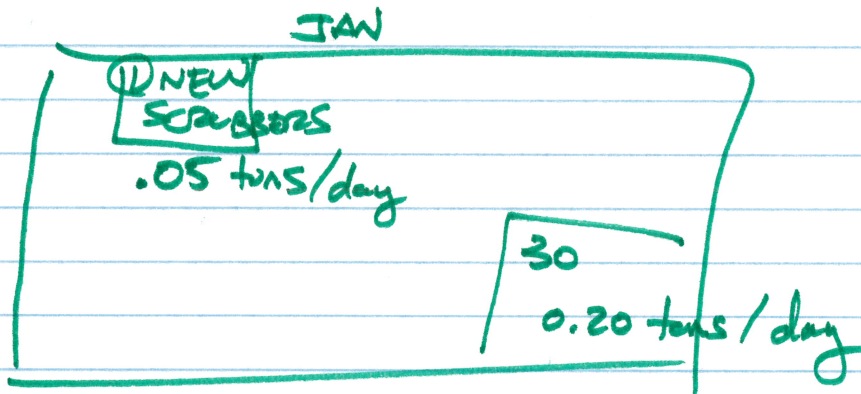
5.1

(a) (29) UPPER:  $30 \times .2 + 30 \times .25 + 30 \times .27 + \dots$

$$30 [.2 + .25 + .27 + .34 + .45 + .52] \dots$$

$$= 60.9 \text{ tons}$$

$$\text{LOWER: } 30 [.05 + .2 + .25 + .27 + .34 + .45] = 46.8 \text{ tons}$$



5.1

$$(15) 2 [.6 + 1.4 + 2.7 + 3.7 + 4.1 + 3.8 + 2.9 + 1.7 + 1.0 + .5]$$

$$\approx 44.8$$

$$\frac{5}{44.8} \cdot \frac{60}{1} = 6.696 \text{ L/min}$$

LARS

$$(19) .001 [0 + 40 + 62 + 82 + 96 + 108 + 116 + 125 + 132 + 137] \approx .898$$

(a)

RARS

$$.001 [40 + 62 + 82 + 96 + 108 + 116 + 125 + 132 + 137 + 142] \approx 1.04$$

$$\frac{.898 + 1.04}{2} = .969$$

$$(b) .969 / 2 = .485$$

(27)

(a)  $\uparrow$  400 $\downarrow$  32 ft/sec<sup>2</sup>

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

$$400 - \frac{32}{2}x$$

[0, 5]

(b)

0	1	2	3	4	5
400	368	336	304	272	240

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

RARS

$$1 [368 + 336 + 304 + 272 + 240] \approx 1520$$

~~1520~~ ft

5.1

33

$$y = 4x - x^2$$

$$[0, 4], n = 4$$

$$\frac{4-0}{4} = 1$$

.5	1.5	2.5	3.5
1.75	3.75	3.75	1.75

0	1	2	3	4

$$1(1.75 + 3.75 + 3.75 + 1.75) = 11 \quad E$$



5.1

(15)  $\frac{b-a}{n}$

$2 [ 0 + .6 + 1.4 + 2.2 + 3.2 + 4.1 + 3.8 + 2.9 + 1.7 + 1.0 + .5 ]$

44.8

$\frac{5}{44.8} \cdot 60 = 6.696 \text{ L/min}$

(33)  $y = 4x - x^2$     x-axis     $n = 4$

$4x - x^2 = 0$   
 $x(4 - x) = 0$   
 $x = 0 \quad x = 4$

0	1	2	3	4
.5	1.5	2.5	3.5	
$\frac{7}{4}$	$\frac{15}{4}$	$\frac{15}{4}$	$\frac{7}{4}$	

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

$1 [ \frac{7}{4} + \frac{15}{4} + \frac{15}{4} + \frac{7}{4} ]$

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

$\frac{44}{4} = \boxed{11} \text{ E}$

$6 - \frac{9}{4}$

$4(\frac{5}{2}) - (\frac{5}{2})^2$

$10 - \frac{25}{4}$

$4(\frac{7}{2}) - (\frac{7}{2})^2$

$14 - \frac{49}{4}$