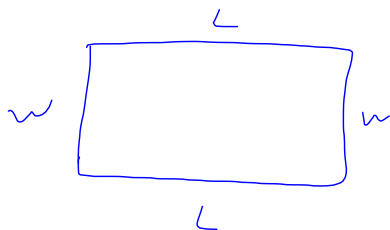


p. 541  
ex 4



$$w = L - 44$$

$$L + w + L + w = 288$$

$$2L + 2w = 288$$

$$2L + 2(L - 44) = 288$$

$$2L + 2L - 88 = 288$$

$$4L - 88 = 288$$

$$+88 \quad +88$$

$$4L = 376$$

$$L = 94$$

$$w = L - 44$$

$$= 94 - 44$$

$$w = 50$$

ex 6

C = exports to Canada

M = exports to Mexico

$$C = M + 110$$

$$C + M = 412$$

$$M + 110 + M = 412$$

$$2M + 110 = 412$$

$$-110 \quad -110$$

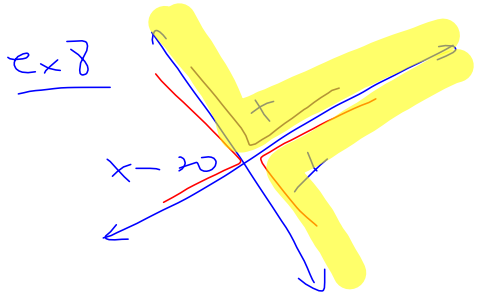
$$2M = 302$$

$$M = 151 \text{ billion}$$

$$C = M + 110$$

$$= 151 + 110$$

$$= 261 \text{ billion}$$



ex 8

$$\begin{array}{r}
 x - 20 = y \\
 x + y = 180 \\
 \hline
 x - y = 20 \\
 \hline
 2x = 200 \\
 x = 100
 \end{array}$$

$$\begin{array}{l}
 x - 20 = y \\
 100 - 20 = y \\
 80 = y
 \end{array}$$

$$\begin{array}{l}
 x - 20 + x = 180 \\
 2x = 200 \\
 x = 100
 \end{array}$$

- ex 14 a)  $I = P \cdot r \cdot t$
- $$I = 5000 \cdot .02 \cdot 1 = \$100$$
- b)  $I = 5000 \cdot .03 \cdot 1 = \$150$
- c)  $I = 5000 \cdot .04 \cdot 1 = \$200$
- d)  $I = 5000 \cdot .035 \cdot 1 = \$175$

ex 18

	Vol. of solution	%	=	Vol. of pure chemical
weak	x	15		15x
strong	y	33		33y
new	120	21		2520

$$x + y = 120$$

$$15x + 33y = 2520 \quad \div 3$$

$$-5x - 5y = -600$$

$$5x + 11y = 840$$

$$6y = 240$$

y = 40L of 33% acid

Vol.  $x + y = 120$

%  $15x + 33y = 21(120)$

$$x + y = 120$$

$$x + 40 = 120$$

x = 80L of 15% acid

ex 22

x = L of 50% juice

y = L of 30% juice

Vol.  $x + y = 200 \quad \cdot (-5)$

%  $50x + 30y = 45(200) \quad \div 10$

$$-5x - 5y = -1000$$

$$5x + 3y = 900$$

---


$$-2y = -100$$

y = 50 L of 30% juice drink

$$x + y = 200$$

$$x + 50 = 200$$

x = 150 L of 50% juice drink

ex 24

$x = \$$  invested at 3%

$y = \$$  invested at 4%

principal  $x + y = 15000 \quad \cdot (-3)$

interest  $.03x + .04y = 550 \quad \cdot 100$

$$-3x - 3y = -45000$$

$$3x + 4y = 55000$$

---


$$y = \$10000 \text{ at } 4\%$$

$$x + y = 15000$$

$$x = \$5000 \text{ at } 3\%$$

ex 28

$x =$  rate for freight train

$y =$  rate for express train

$$\frac{\text{rate} \cdot \text{time} = \text{dist}}{\text{time} \quad \text{time}}$$

$$x = y - 30$$

$$3y + 3x = 390$$

$$3y + 3(y - 30) = 390$$

$$3y + 3y - 90 = 390$$

$$6y = 480$$

$$y = 80 \text{ km/hr}$$

express



$$x = y - 30$$

$$x = 80 - 30 = 50 \text{ km/hr}$$

freight

ex 32

$$x = \text{U2's revenue}$$

$$y = \text{Bruce's revenue}$$

$$x + y = 217.5$$

$$y = x - 28.5$$

$$x + x - 28.5 = 217.5$$

$$2x = 246$$

$$x = 123 \text{ million for U2}$$

$$y = x - 28.5 = 94.5 \text{ million for Bruce}$$

ex 34

$$C = \$ \text{ for a capp.}$$

$$L = \$ \text{ for a latte}$$

$$2C + 3L = 14.55$$

$$(-2)(C + 2L = 8.77)$$

$$2C + 3L = 14.55$$

$$-2C - 4L = -17.54$$


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$$-L = -2.99$$

$$L = 2.99$$

$$C + 2L = 8.77$$

$$C + 2(2.99) = 8.77$$

$$C + 5.98 = 8.77$$

$$C = 2.79$$