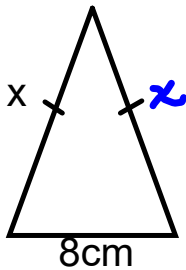




## Warm Up Grade 7



1) The base of an isosceles triangle is 8 cm. What is the length of the sides if the perimeter is 32 cm?



$$\begin{aligned} x + x + 8 &= 32 \\ 2x + 8 &= 32 \\ 2x + \cancel{8} &= 32 - 8 \\ 2x &= 24 \\ \div 2 & \quad \div 2 \\ \boxed{x = 12} \end{aligned}$$

2) Solve using balances  $3n + 11 = 26$

$$3n + 11 - 11 = 26 - 11$$

$$3n = 15$$

$$\div 3 \quad \div 3$$

$$\boxed{n = 5}$$

Pg 229

$$1a) 20 + a = 50$$

$$20 + a - 20 = 50 - 20$$

$$a = 30$$

$$b) 15 + b = 80$$

$$15 + b - 15 = 80 - 15$$

$$b = 65$$

$$c) 65 = c + 15$$

$$65 - 15 = c + 15 - 15$$

$$50 = c$$

$$d) 2d + 3 = 45$$

$$2d + 3 - 3 = 45 - 3$$

$$2d = 42$$

$$\frac{2d}{2} = \frac{42}{2}$$

$$d = 21$$

20

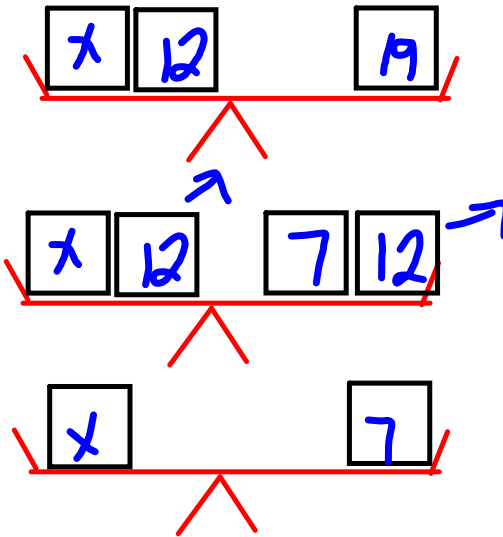
$$x + 12 = 19$$

$$x + 12 - 12 = 19 - 12$$

$$x = 7$$

$$\begin{array}{r} \text{LS} \\ x + 12 \\ 7 + 12 \\ \hline 19 \end{array}$$

$$\begin{array}{r} \text{RS} \\ 19 \end{array}$$



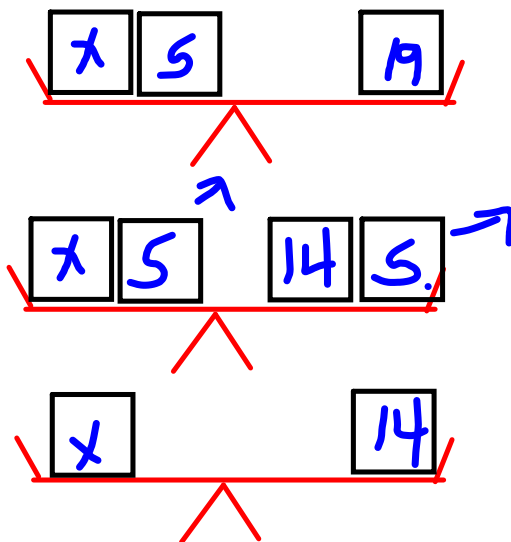
ii)  $x + 5 = 19$

$$x + 5 - 5 = 19 - 5$$

$$x = 14$$

$$\begin{array}{r} \text{LS} \\ x + 5 \\ 14 + 5 \\ \hline 19 \end{array}$$

$$\begin{array}{r} \text{RS} \\ 19 \end{array}$$



i)  $4y = 12$

$\frac{4y}{4} = \frac{12}{4}$

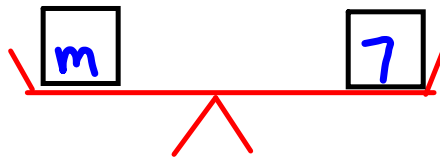
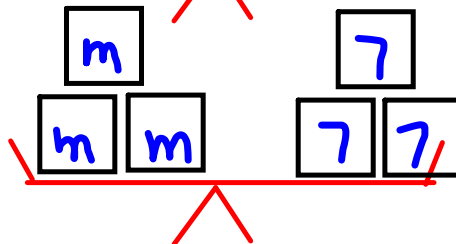
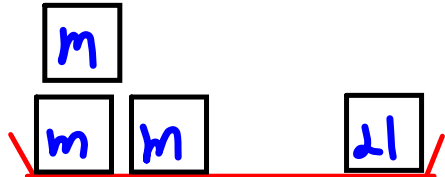
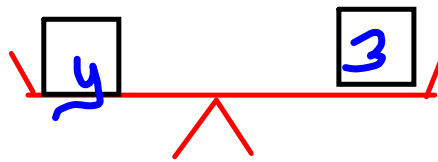
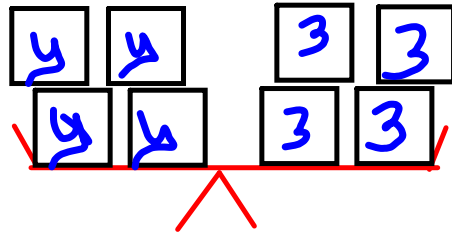
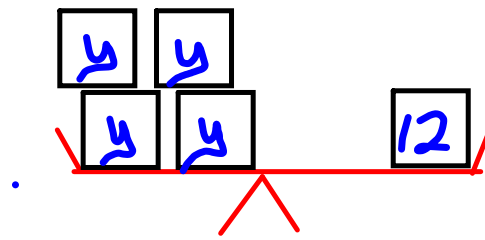
$y = 3$   
 LS  $4y$   
 $4 \times 3$   
 $12$   
 RS  $12$

ii)  $3m = 21$

$\frac{3m}{3} = \frac{21}{3}$

$m = 7$

LS  $3m$   
 $3 \times 7$   
 $21$   
 RS  $21$



$$\begin{aligned}2 \text{ v) } 3k + 7 &= 31 \\ 3k + 7 - 7 &= 31 - 7 \\ 3k &= 24 \\ \frac{3k}{3} &= \frac{24}{3} \\ k &= 8\end{aligned}$$

$$\begin{array}{l} \text{LS} \\ 3k + 7 \\ 3 \times 8 + 7 \\ 24 + 7 \\ 31 \end{array} \qquad \begin{array}{l} \text{RS} \\ 31 \end{array}$$

$$\begin{aligned}2 \text{ vi) } 2p + 12 &= 54 \\ 2p + 12 - 12 &= 54 - 12 \\ 2p &= 42 \\ \frac{2p}{2} &= \frac{42}{2} \\ p &= 21\end{aligned}$$

$$\begin{array}{l} \text{LS} \\ 2p + 12 \\ 2 \times 21 + 12 \\ 42 + 12 \\ 54 \end{array} \qquad \begin{array}{l} \text{RS} \\ 54 \end{array}$$

3  $n =$  the number

$$\begin{aligned} \text{a) } n + 5 &= 24 \\ n + 5 - 5 &= 24 - 5 \\ n &= 19 \end{aligned}$$

$$\begin{array}{l} \text{LS} \\ n + 5 \\ 19 + 5 \\ 24 \end{array}$$

$$\begin{array}{l} \text{RS} \\ 24 \end{array}$$

$$\begin{aligned} \text{b) } n + 8 &= 32 \\ n + 8 - 8 &= 32 - 8 \\ n &= 24 \end{aligned}$$

$$\begin{array}{l} \text{LS} \\ n + 8 \\ 24 + 8 \\ 32 \end{array}$$

$$\begin{array}{l} \text{RS} \\ 32 \end{array}$$

$$\begin{aligned} \text{c) } 3n &= 42 \\ \frac{3n}{3} &= \frac{42}{3} \\ n &= 14 \end{aligned}$$

$$\begin{array}{l} \text{LS} \\ 3n \\ 3 \times 14 \\ 42 \end{array}$$

$$\begin{array}{l} \text{RS} \\ 42 \end{array}$$

$$\begin{aligned} \text{d) } 5 + 2n &= 37 \\ 5 + 2n - 5 &= 37 - 5 \\ 2n &= 32 \\ \frac{2n}{2} &= \frac{32}{2} \\ n &= 16 \end{aligned}$$

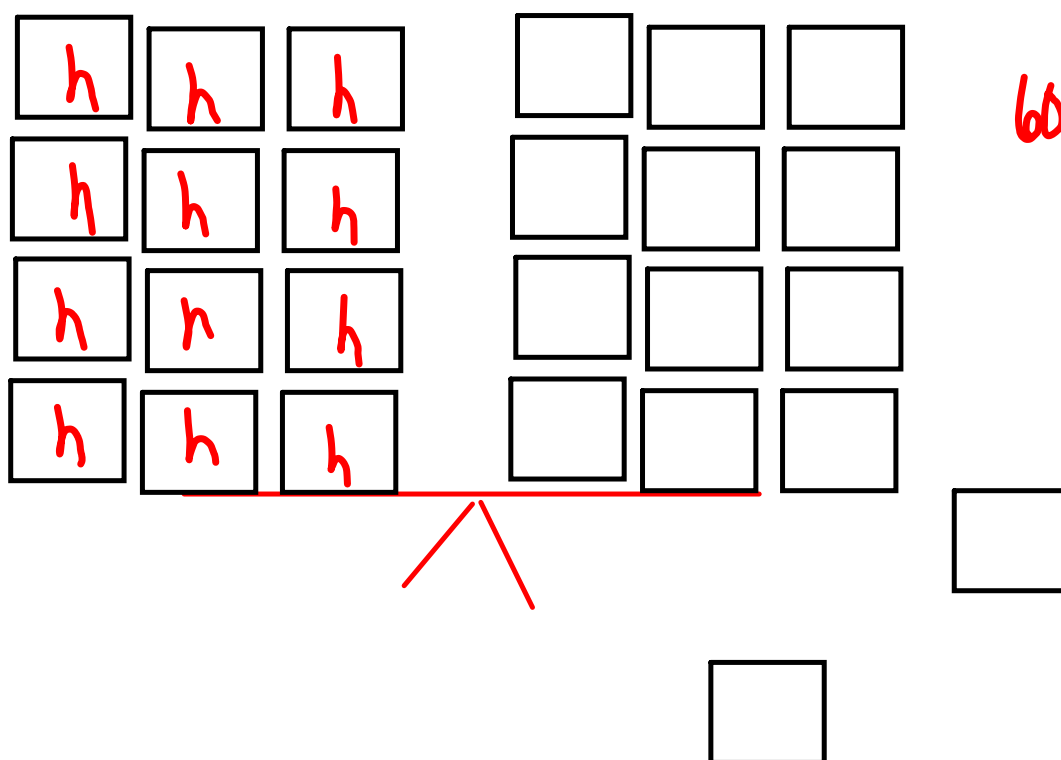
$$\begin{array}{l} \text{LS} \\ 5 + 2n \\ 5 + 2 \times 16 \\ 5 + 32 \\ 37 \end{array}$$

$$\begin{array}{l} \text{RS} \\ 37 \end{array}$$

$$\begin{aligned}4a) \quad A &= bh \\ 60 &= 12h \\ 12h &= 60 \\ \frac{12h}{12} &= \frac{60}{12} \\ h &= 5\end{aligned}$$

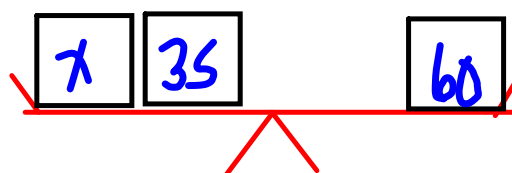
$$\begin{aligned}b) \quad A &= bh \\ 112 &= 8h \\ \frac{112}{8} &= \frac{8h}{8} \\ 14 &= h\end{aligned}$$

$$\begin{aligned}c) \quad A &= bh \\ 169 &= 13h \\ \frac{169}{13} &= \frac{13h}{13} \\ 13 &= h\end{aligned}$$

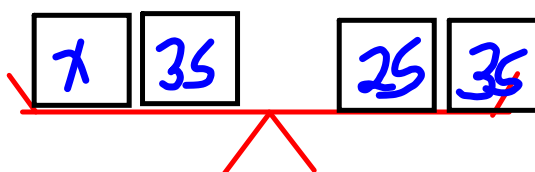




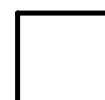
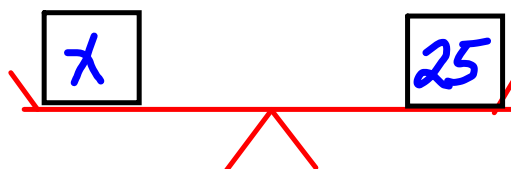
$$5. x + 35 = 60$$



$$x + 35 - 35 = 60 - 35$$



$$x = 25$$



6. Discuss

# *Class / Homework*

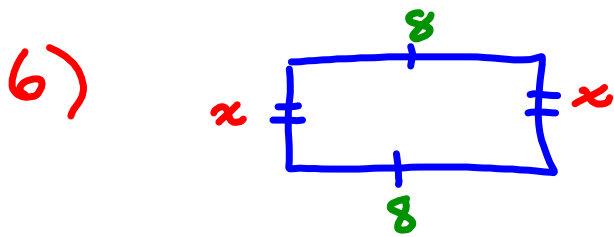
Sheet 136 # 1-7

brief review

2c)

$$10 = c + 5$$

$$5 = c$$



$$\underbrace{x + x}_{\text{red}} + \underbrace{8 + 8}_{\text{green}} = 44$$

$$2x + 16 = 44$$

Sheet 136 Solving equations.pdf