

BE-1B

TUESDAY 8-28-2007

① WHAT IS THE MEDIAN OF THIS SET OF DATA?

14.9, 21.7, 12.5, 20.6, 13.8, 18.2, 19.5

② A bag contains 8 blue, 5 yellow, 6 red, and 9 green marbles. If one is pulled at random, what is the probability that it is blue?

③ A model car is built to a scale of 1:24. If the length of the model is 4 inches, what is the length of the actual car?

④ A typist can type 70 words in 60 sec. How long will it take to type 245 words. (in minutes).

~~~~~ ANSWER WB ~~~~~

① Pg. 78 # 3

③ Pg 84 # 3

② Pg 81 # 3

④ Pg 85 # 8

## Chapter 8-8

### SOLVING EQUATIONS WITH MORE THAN ONE VARIABLE

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You STILL "get the variable by itself" but, since there is MORE THAN ONE variable, you have to be told which ONE to solve for.

And the "other side of the equation" will have variable(s) AND numbers, NOT just numbers.

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Ex) Solve  $xy = 7$  for  $y$

$$\frac{xy}{x} = \frac{7}{x}$$

$$y = \frac{7}{x}$$

↑  
Numbers and All the "other" variables, in this case  $x$ .

EX1  
PG 166

Solve  $3x - 4y = 7$  for  $y$

$-3x$                        $-3x$

$$\frac{-4y}{-4} = \frac{-3x + 7}{-4}$$

$$y = \frac{-3x + 7}{-4}$$

⚡  
DON'T LEAVE - in bottom  
MULTIPLY BY  $\frac{-1}{-1}$   
OR "change all signs"

$$y = \frac{3x - 7}{4}$$

EX 2  
PG 167

Solve  $2m - t = 5m + 5$  for  $m$

↑                      ↑  
problem, you can get the  
 $m$  terms by themselves but  
you cannot combine them,  
they are unlike terms

Solution ⇒ UNDO THE DP

$$\overbrace{2m - t} = 5m + 5 \text{ for } m$$

$$-5m \quad -5m$$

$$2m - 5m - t = 5$$

$$+t \quad +t$$

$$2m - 5m = 5 + t$$

↑    ↑  
 m is both  
 terms

$$\frac{m(2-5)}{(2-5)} = \frac{5+t}{2-5}$$

$$m = \frac{5+t}{2-5}$$

(Ex) Solve  $mw - t = 2w + 5$  for  $w$

$$\begin{array}{r} mw - t \\ -2w \end{array} = \begin{array}{r} 2w + 5 \\ -2w \end{array}$$

$$\begin{array}{r} mw - 2w - t \\ \phantom{mw - 2w} + t \end{array} = \begin{array}{r} 5 \\ + t \end{array}$$

$$\begin{array}{r} mw - 2w \\ \phantom{mw - 2w} + t \end{array} = 5 + t$$

$$\frac{w(m-2)}{(m-2)} = \frac{5+t}{(m-2)}$$

$$w = \frac{5+t}{m-2}$$

**Formula** An equation that shows a relationship between physical items

EX)  $C = 2\pi r$

EX) SOLVE FOR  $r$

EX) SOLVE FOR  $\pi$

HW: READ CH 3-8  
#13 to 18 on  
PAGE 16.8.