

: pg 33-34 : 1-39(0); #2

① subtraction

②  $7-n$

③ B ⑤ A

⑦  $x+10=24$

⑨  $\frac{20}{n} \leq 2$

⑪  $10-x$

⑬  $x+9$

⑮  $\frac{x}{50}$

⑰  $x+18$

⑲  $x-7$

⑳ D ㉑ C

⑳  $x+10 \geq 44$  ㉑  $35 < 21-x$

㉒  $7x=56$  ㉓  $\frac{35}{x}=7$

㉔  $28-x=18; 10$  ㉕  $\frac{49}{x}=7; 7$

㉖  $110=55+; 2h$

㉘  $\$50$

# 1.6. Problem Solving Plan Using Models

Sept. 15, 2006

- modeling: writing algebraic expressions, equations, inequalities that represent "Real-Life Math"

- Verbal Model: Words Only

- algebraic Model: translation of the Verbal Model into Math (#'s & Variables)

ex1)

\* Chinese Restaurant.

\* Order Several  $\$2.00$  Plates

\* The Bill is  $\$25.50$  which includes a  $\$1.50$  in tax.

→ Make a Model to find the Number of Plates

Stage 1: Verbal Model:

$$\boxed{\# \text{ of Plates}} \cdot \boxed{\text{Cost Per Plate}} = \boxed{\text{Bill / Cost Total}} - \boxed{\text{Tax}}$$

Stage 2: Create Labels

Cost per Plate →  $\$2.00$

# of Plates →  $x$  Plates

Tax →  $\$1.50$

Total Bill →  $\$25.50$

Stage 3: algebraic Model:

$$x \cdot 2 = 25.50 - 1.50$$

$$\frac{2x}{2} = \frac{24.00}{2}$$

$$\underline{\underline{x = 12 \text{ plates}}}$$

ex2) \* a football field is 53yds wide and 120yds long.

\* a Soccer field has the Same Area, but is 60yds wide.

? How Long is the Soccer field.



Stage 1: Verbal Model  
Area of F.B.F. = Area of S.F.

$$\begin{array}{|c|} \hline \text{length of} \\ \text{the F.B.F.} \\ \hline \end{array} \cdot \begin{array}{|c|} \hline \text{width of} \\ \text{the F.B.F.} \\ \hline \end{array} = \begin{array}{|c|} \hline \text{length} \\ \text{of the S.F.} \\ \hline \end{array} \cdot \begin{array}{|c|} \hline \text{width of} \\ \text{the S.F.} \\ \hline \end{array}$$

Stage 2: Create Labels

Length of the F.B.F.  $\rightarrow$  120yds

Width of the F.B.F.  $\rightarrow$  53yds

Length of the S.F.  $\rightarrow$  x yds

Width of the S.F.  $\rightarrow$  60yds

Stage 3: Alg. Model

$$120 \cdot 53 = x \cdot 60$$

$$\frac{6360}{60} = \frac{60x}{60}$$

$$\underline{\underline{106 \text{ yds} = x}}$$

# O.T.L.

① Write the Blue Box  
ontop of Pg 37 into  
your Notebooks.

② Pg 37: "at the Bottom"  
Checkpoint #1. Include a  
Picture

③ Pg 39: 1-10 (all)

④ Need Graph Paper  
for Next Week!