

: 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

㉒  $x+10 \geq 44$  ㉓  $35 < 21-x$

㉔  $7x=56$  ㉕  $\frac{35}{x}=7$

㉖  $28-x=18; 10$  ㉗  $\frac{49}{x}=7; 7$

㉘  $110=55+; 2h$

㉙  $\$50$

## 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:

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

Stage 2: Create Labels

Cost per Plate → \$2

# of Plates → x plates

Tax → \$1.50

Total Bill → \$25.50

Stage 3: algebraic Model:

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

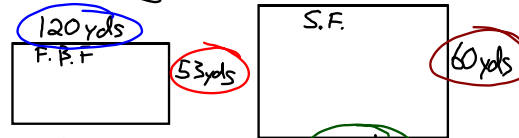
$$\frac{2x}{2} = \frac{24}{2}$$

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

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  $x$  yds.

Area of F.B.F. = Area of S.F.

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

Stage 2: Create Labels

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

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

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

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

Stage 3: Alg. Model

$$\underline{120 \cdot 53} = x \cdot 60$$

$$\begin{array}{r} 6360 \\ \hline 60 \end{array} = \begin{array}{r} 60x \\ \hline 60 \end{array}$$

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

# 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!