

Sec 1-4: Solving Equations ①

* Properties to Solve Equations *

- Reflexive Property: $a = a$, $5 = 5$
anything equals itself.
- Symmetric Property: if $a = b$, then $b = a$
ex.) $3x = 12 \rightarrow 12 = 3x$
* Swap Left side w/ Right side.
- Transitive Property: If $a = b$ & $b = c$
then $a = c$
ex.) $5x = 9y$ & $9y = 10$, then $5x = 10$
- Substitution property:
IF $a = b$, a may be replaced w/ b .
ex.) $z + 7 - 3 = 5$, then $z + 4 = 5$
- Addition/Subtraction Property:
IF $a = b$ } IF $a = b$
then $a + c = b + c$ } $a - c = b - c$
add like amount both sides } subtract like amounts

(2)

mult/Div properties:

$$\left. \begin{array}{l} \text{If } a = b \\ a * c = b * c \end{array} \right\} \text{If } \frac{a}{c} = \frac{b}{c}$$

$$\begin{array}{r} \text{P.31. \#10) } 10 + 5x = 110 \\ -10 \qquad \qquad -10 \\ \hline 5x = 100 \\ \frac{5x}{5} = \frac{100}{5} \end{array}$$

$$x = 20$$

$$\begin{array}{l} \text{(12) } 3b + 4b + 5b = 30 \\ \frac{12b}{12} = \frac{30}{12} \end{array}$$

$$b = 2 \frac{6}{12} \rightarrow 2 \frac{1}{2} \text{ OR } 2.5$$

$$\text{(15) } \begin{pmatrix} 3 \\ -\frac{1}{2} \\ 2 \end{pmatrix} - \frac{2}{3} k = \frac{14}{1} \begin{pmatrix} -3 \\ 2 \end{pmatrix}$$

$$k = \frac{-42}{2} = \text{(21)}$$

* Name the property *

⑧ IF $r+2=8$, then $r=6$
 $\quad \quad \quad \underline{-2} \quad \underline{-2}$

* Subtraction Property

⑧b. $3x=5 \rightarrow 5=3x$

* Symmetric property

* Changing words to symbols *

⑥ three decreased by twice a #

$$3 - 2x$$

⑥b. Ten more than five times a number cubed.

$$5x^3 + 10$$

P. 31 # 20-42 Even

Due
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