

BE-1A TUESDAY 10-20-09

SOLVE:

① $8 = 3 + 5(x - 2)$

② $6x + 7 = 8x - 13$

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- Take out homework, Pg. 152 #16-19.

Summary of Equation Solving Steps:

- ① Simplify left and right side
(No parentheses left, combine like terms)
- ② If variables are on both sides,
use undo to combine.
(choose undo with fewest negatives)
- ③ Get the variable by itself by
using undos.

THERE ARE TWO SPECIAL CASES WHEN SOLVING EQUATIONS. IN BOTH CASES YOU DO EVERYTHING CORRECT BUT "YOUR VARIABLE GOES AWAY"! WHAT DOES THIS MEAN?

(EX) Solve: $3(x+1) - 5 = 3x - 2$

$$3x + 3 - 5 = 3x - 2$$

$$3x - 2 = 3x - 2$$

$$\begin{array}{ccc} -3x & & -3x \\ 3x - 2 & = & 3x - 2 \end{array}$$

VARIABLE
GOES AWAY

$$\begin{array}{ccc} \nearrow & & \nearrow \\ -2 & = & -2 \end{array}$$

TRUE STATEMENT.
ALWAYS TRUE, FOR
ANY VALUE OF X.

X = ALL REAL NUMBERS

ANSWER

2.

WHAT IS THE SECOND SPECIAL CASE?

(EX) $2x + 5 = 5(x - 7) - 3x$

$$2x + 5 = 5x - 35 - 3x$$

$$\begin{array}{ccc} 2x + 5 & = & 2x - 35 \\ -2x & & -2x \end{array}$$

⚡
VARIABLE
GOES AWAY

$$5 = -35$$

⚡
FALSE STATEMENT.
ALWAYS FALSE FOR
ANY VALUE OF X.

X = NO SOLUTION

ANSWER.

Summary: Variable goes away,
true statement $\Rightarrow$ All Real Numbers
false statement $\Rightarrow$ NO SOLUTION

Group practice / board "challenge" ?

$\Rightarrow$ Pg. 152 # 22-29

Homework: Pg 154 # 51 and 52.