

Solving Equations w/ Variables on Both Sides

ex 1) $7x + 19 = -2x + 55$

move the
lesser Variables
to the
greater side

$$+2x \quad +2x$$

$$9x + 19 = 55$$

$$-19 \quad -19$$

$$\frac{9x}{9} = \frac{36}{9}$$

$$\underline{\underline{x = 4}}$$

$$\begin{array}{rcl} \text{ex2)} & 80 - 9y & = 6y \\ & + 9y & + 9y \\ \hline & 16 & \cancel{80} = \cancel{15}y \\ & \underline{3} & \underline{15} \end{array}$$

$$\cancel{16/3} \text{ or } \frac{16}{3} \qquad \frac{16}{3} = y$$

ex 3)

$$\underline{3x} - 10 + \underline{4x} = 5x - 6$$

$$7x - 10 = 5x - 6$$

$$\underline{-5x} \qquad \underline{-5x}$$

$$2x - 10 = -6$$

$$\underline{+10} \qquad \underline{+10}$$

$$\underline{2x} = \underline{4}$$

$$\underline{\underline{x = 2}}$$

of Solutions

Linear equations have 1 Solution.

Some Linear equations have NO Solution

Identity is an equation that is true for
All values of the Variables.

Determine if the equation has, 1 solution, no solution, or is the identity.

a) $3(x+2) = 3x+6$
 $3(x)+3(2) = 3x+6$

b) $3(x+2) = 3x+4$

c) $3(x+2) = 2x+4$

~~STOP~~

O.T.L.

① Pg 154-155:

9-14(a);

17-33(o); 48

② Turn in Pg 150 1-6 all

pg. 154 155; 9-14(a): 17-33 (b): 48

- | | | |
|-------------------------------|--------------------------|-----------|
| ⑨ one solution, -1 | ①⑨ add $8x$ to each side | |
| ⑩ no solution | ②① 3 | ③① 4 |
| ⑪ one solution, 7 | ②③ 3 | |
| ⑫ no solution | ②⑤ 2 | ③③ -2 |
| ⑬ identity | ②⑦ $\frac{3}{7}$ | ④⑧ 5 sec. |
| ⑭ one solution, 5 | ②⑨ -8 | |
| ⑮ subtract x from each side | | |

3.5 More on Oct. 13, 2006 Linear Equations

ex 1 $4(1-x) + 3x = -2(x+1)$

A) 9

B) $\frac{6}{5}$

C) 6

D) -6

ex2 $\frac{1}{4}(12x+16) = 10-3(x-2)$

A health club has two payment plans. You can become a member by paying a \$10 new member fee and use the gym for \$5 a visit. Or, you can use the gym as a nonmember for \$7 a visit. Compare the cost of the two payment plans.

# of visits	1	2	3	4	5	6	7
Non-Mem.							
Mem.							

$$\text{NonMem} = \text{Mem.}$$

O.T.L.

① Copy chart pg 15 \rightarrow
Steps for Solving Lin. Equ-
into N.B.

② pg 160-161 : 19-35(0); 40