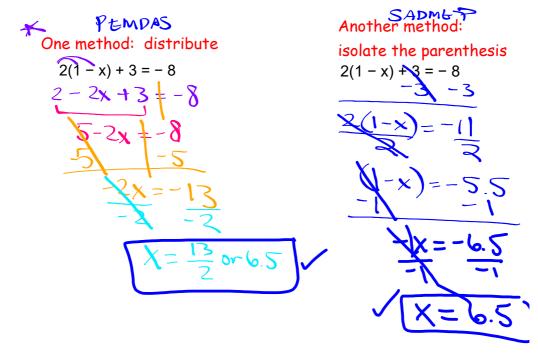1) put everything away EXCEPT a pen and your pg. 16 homework

2) we will check and make corrections now

3) you will learn the 1.2 day 2 lesson

4) then make corrections if needed before turning in your homework into the folder and grading yourself out of 4!

5) start your homework for tonight

Algebra 1.2: Solving Multi-step Equations DAY TWO

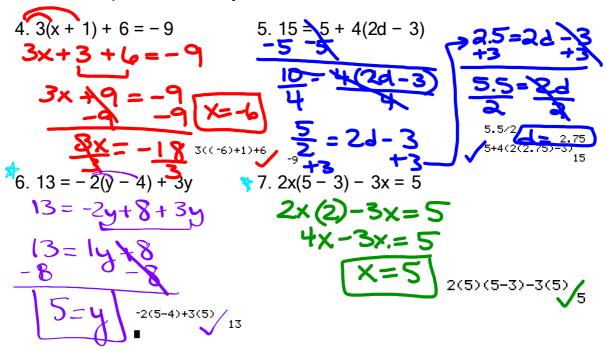**Example 1:** Solving equations using the distributive property.

Solve $2(1 - x) + 3 = - 8$. Check your solution.

PEMDAS

One method: distribute

$2(1 - x) + 3 = - 8$

$2 - 2x + 3 = -8$

$5 - 2x = -8$

$5 \qquad -5$

$-2x = -13$

$-2 \qquad -2$

$$x = \frac{13}{2} \text{ or } 6.5 \checkmark$$

SADMGP

Another method:

isolate the parenthesis

$2(1 - x) + 3 = - 8$

$-3 \qquad -3$

$\frac{2(1-x)}{2} = \frac{-11}{2}$

$(1 - x) = -5.5$

$-1 \qquad -1$

$-x = -6.5$

$-1 \qquad -1$

$x = 6.5$ ✓

Aug 21-2:39 PM

1

Practice 1:

Solve the equation. Check your solution.

4. $3(x + 1) + 6 = -9$

$3x + 3 + 6 = -9$

$3x + 9 = -9$
$\quad\quad -9 \quad -9$
$\boxed{x = -6}$

$\frac{3x}{3} = \frac{-18}{3}$

$3((-6)+1)+6$ ✓

5. $15 = 5 + 4(2d - 3)$

$-5 \quad -5$

$\frac{10}{4} = \frac{4(2d-3)}{4}$

$\frac{5}{2} = 2d - 3$
$+3 \quad\quad +3$

$2.5 = 2d - 3$
$+3 \quad\quad +3$

$\frac{5.5}{2} = \frac{2d}{2}$

$5.5/2$

$\boxed{d = 2.75}$

$5+4(2(2.75)-3)$ ✓ 15

6. $13 = -2(y - 4) + 3y$

$13 = -2y + 8 + 3y$

$13 = 1y + 8$
$-8 \quad\quad -8$

$\boxed{5 = y}$

$-2(5-4)+3(5)$ ✓ 13

7. $2x(5 - 3) - 3x = 5$

$2x(2) - 3x = 5$
$4x - 3x = 5$

$\boxed{x = 5}$

$2(5)(5-3)-3(5)$ ✓ 5

Monitoring Progress 4-9

Example 2:

Use the table to find the number of miles x you need to bike on Friday so that the mean number of miles biked per day is 5.

↓ average

Day	Miles
Monday	3.5
Tuesday	5.5
Wednesday	0
Thursday	5
Friday	x

$5 = \frac{(3.5 + 5.5 + 0 + 5 + x)}{5} \cdot 5$

$25 = 3.5 + 5.5 + 0 + 5 + x$

$25 = 14 + x$
$-14 \quad\quad -14$

$\boxed{11 = x}$

You need to bike 11 miles on Friday.

Example 4

2

Practice 2:

10. The formula $d = \frac{1}{2}n + 26$ relates the nozzle pressure n (in pounds per square inch) of a fire hose and the maximum horizontal distance the water reaches d (in feet). How much pressure is needed to reach a fire 50 feet away?

d

$$50 = \frac{1}{2}n + 26$$
$$-26 \qquad -26$$
$$24 = \frac{1}{2}n \Rightarrow 2 \cdot 24 = \frac{n}{2} \cdot 2$$
$$\boxed{48 = n}$$

h

d

You will need 48 pounds of pressure to reach a fire 50 feet away.

Monitoring Progress 10

Grab a slip of paper from me and complete this problem. Then give me your slip and do the homework assignment.

Exit Ticket: Solve 8x + 9 − 4x = 25. Check your solution.

Closure

3

HW: Pg. 16

A: 16 - 24(e), 34 - 38 (e), 41, 43, 47, 50

B: 17 - 24, 30, 33, 40, 44, 46, 63 - 65

(e) means even

Example 3

Extra Practice Problems:

Your school's drama club charges $4 per person for admission to aplay. The club borrowed $400 to pay for costumes and props. After paying back the loan, the club has a profi t of $100. How many people attended the play?

11. You have 96 feet of fencing to enclose a rectangular pen for your dog. To provide sufficient running space for your dog to exercise, the pen should be three times as long as it is wide. Find the dimensions of the pen.

Example 5