

12-6-18

Aim: SWBAT solve and check "Combining Like Terms" equations and "Variables On Both Sides" equations.

HW: Packet Pages 17 - 19

Test Wednesday

Do Now: Quiz

<p>3 $\frac{8}{1} \cdot \frac{3a+4}{5} = 11 \cdot \frac{5}{1}$</p> $3a+4 = 55$ $\begin{array}{r} 3a+4 = 55 \\ -4 \quad -4 \\ \hline 3a = 51 \\ \frac{3a}{3} = \frac{51}{3} \\ a = 17 \end{array}$	<p>CHECK</p> $\frac{3a+4}{5} = 11$ $\frac{3(17)+4}{5} = 11$ $\frac{51+4}{5} = 11$ $\frac{55}{5} = 11$ $11 = 11$	<p>4 $\frac{8}{1} \cdot \frac{2w-3}{9} = 5 \cdot \frac{9}{1}$</p> $2w-3 = 45$ $\begin{array}{r} 2w-3 = 45 \\ +3 \quad +3 \\ \hline 2w = 48 \\ \frac{2w}{2} = \frac{48}{2} \\ w = 24 \end{array}$	<p>CHECK</p> $\frac{2w-3}{9} = 5$ $\frac{2(24)-3}{9} = 5$ $\frac{48-3}{9} = 5$ $\frac{45}{9} = 5$ $5 = 5$
<p>4 $\frac{8}{1} \cdot \frac{2(h+12)}{5} = 10 \cdot \frac{5}{1}$</p> $2(h+12) = 50$ $2h+24 = 50$ $\begin{array}{r} 2h+24 = 50 \\ -24 \quad -24 \\ \hline 2h = 26 \\ \frac{2h}{2} = \frac{26}{2} \\ h = 13 \end{array}$	<p>CHECK</p> $\frac{2(h+12)}{5} = 10$ $\frac{2(13+12)}{5} = 10$ $\frac{2(25)}{5} = 10$ $\frac{50}{5} = 10$ $10 = 10$	<p>5 $\frac{8}{2} \cdot \frac{2(4t-7)}{3} = -22 \cdot \frac{3}{2}$</p> $4t-7 = -33$ $\begin{array}{r} 4t-7 = -33 \\ +7 \quad +7 \\ \hline 4t = -26 \\ \frac{4t}{4} = \frac{-26}{4} \\ t = -\frac{13}{2} \end{array}$	<p>CHECK</p> $\frac{2(4t-7)}{3} = -22$ $\frac{2(4 \cdot \frac{-13}{2} - 7)}{3} = -22$ $\frac{2(-26-7)}{3} = -22$ $\frac{2(-33)}{3} = -22$ $\frac{-66}{3} = -22$ $-22 = -22$

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#4 Distributive Property and Combining Like Terms Equations

- iii. Simplify before you solve
- Eliminate parentheses
 - Combine Like Terms

#5 Variables on Both Sides Equations

- i. Eliminate a variable term with opposite sign

Solve and check, algebraically.

	A	B
1	<p><i>Combining Like Terms Equation</i></p> $3x + 8x = 55$ $\cancel{11}x = \frac{55}{11}$ $x = 5$	<p><i>Variables on Both Sides</i></p> $55 + 3x = 8x$ $\cancel{-3x} \quad \cancel{-3x}$ $\frac{55}{5} = \frac{5x}{5}$ $11 = x$
	<p>CHECK</p> $3x + 8x = 55$ $3 \cdot 5 + 8 \cdot 5 = 55$ $15 + 40 = 55$ $55 = 55$	<p>CHECK</p> $55 + 3x = 8x$ $55 + 3 \cdot 11 = 8 \cdot 11$ $55 + 33 = 88$ $88 = 88$

	A	B
2	<p><i>CLT</i></p> $4x - x + 2x - 6 = 11$ $5x - 6 = 11$ $\quad +6 \quad +6$ $\hline 5x = 17$ $\cancel{5}x = \frac{17}{5}$ $x = \frac{17}{5}$	<p><i>✓ on Both Sides</i></p> $4x - 6 = -11 - x$ $\quad +x \quad \quad +x$ $\hline 5x - 6 = -11$ $\quad +6 \quad +6$ $\hline 5x = -5$ $\cancel{5}x = \frac{-5}{5}$ $x = -1$
	<p>CHECK</p> $4x - x + 2x - 6 = 11$ $4\left(\frac{17}{5}\right) - \frac{17}{5} + 2\left(\frac{17}{5}\right) - 6 = 11$ $\frac{68}{5} - \frac{17}{5} + \frac{34}{5} - 6 = 11$ $\frac{85}{5} - 6 = 11$ $17 - 6 = 11$ $11 = 11$	<p>CHECK</p> $4x - 6 = -11 - x$ $4(-1) - 6 = -11 - (-1)$ $-4 - 6 = -11 + 1$ $-10 = -10$

3	$2x - 5x - 5 = 3$	$2x - 5 = 5x - 3$
	CHECK	CHECK

HOMEWORK

Solve and check, algebraically.

	A	B
4	$8b + 2b = 10$	$-n + 8n = 35$
	CHECK	CHECK

5	$7y - 3y - 8 = -32$	$4x - 7 - 7x = -1$
	CHECK	CHECK

	A	B
6	$-2z + 6z - 9 = 15$	$-22 + 3k + 6 = -28$
	CHECK	CHECK

7	$5z - 43 = 2z + 80$	$16y - 43 = 4y + 65$
	CHECK	CHECK

	A	B
8	$8f + 11 = -7f - 19$	$-1 + 11a = 6 - 3a$
	CHECK	CHECK