Please have your homework on your desk. Calculator? Yes!

DATE:

TSW solve multi-step equations.

QRQ2:

Simplify $5(x - 11) - 2(x + 13)$

$5x - 55 - 2x - 26$

$3x - 81$

Evaluate $-a^2 - b^2 + c$ when $a = -2$, $b = 4$ and $c = -9$

$-(-2)^2 - (4)^2 + (-9)$

$-(4) - (16) - 9$

$-4 - 16 - 9$

-29

HW

(9) $0 = 4 + \frac{n}{5}$

$-4 \quad -4$

$-4 = \frac{n}{5} \cdot 5$

If $-20 = n$

then $n = -20$

(6) $-1 = \frac{5+x}{6}$

$6 \cdot -1 = \frac{5+x}{6} \cdot 6$

$-6 = 5 + x$

$-5 \quad -5$

If $-11 = x$

then $x = -11$

$\frac{-1}{1} = \frac{5+x}{6}$

$-6 = 5 + x$

$-5 \quad -5$

$-11 = x$

Solve Multi-Step Equations

Notes:

Solve each equation.

Ex1 $-30 = -3x - 2x$

$\frac{-30}{-5} = \frac{-5x}{-5}$

If $6 = x$

then $x = 6$

Now You Try!

Solve each equation

1 $-25 = -10x + 5x$

$\frac{-25}{-5} = \frac{-5x}{-5}$

If $5 = x$

then $x = 5$

Ex2 $5m - 7 = 5m$

$-5m \quad -5m$

$-7 = 0m$

$-7 = 0$

Not True! No Solution!

2 $6m = 6m + 1$

$-6m \quad -6m$

$0m = 1$

$0 \neq 1$

No Solution

Ex3 $16 = -(p - 6)$

$16 = -p + 6$

$-6 \quad -6$

$\frac{10}{-1} = \frac{-p}{-1}$

If $-10 = p$

then $p = -10$

3 $-(x + 3) = 20$

$-x - 3 = 20$

$+3 \quad +3$

$\frac{-x}{-1} = \frac{23}{-1}$

$x = -23$

Ex4 $8m - 3 = 6m + 7$

$-6m \quad -6m$

$2m - 3 = 7$

$+3 \quad +3$

$\frac{2m}{2} = \frac{10}{2}$

$m = 5$

4 $9x + 1 = 4x - 19$

$-4x \quad -4x$

$5x + 1 = -19$

$-1 \quad -1$

$\frac{5x}{5} = \frac{-20}{5}$

$x = -4$

Ex5 $-16 + 6k = 2(2 + k)$

$-16 + 6k = 4 + 2k$

$-2k \quad -2k$

$-16 + 4k = 4$

$+16 \quad +16$

$\frac{4k}{4} = \frac{20}{4}$

$k = 5$

5 $4(g + 2) = -14 + 6g$

$4g + 8 = -14 + 6g$

$-4g \quad -4g$

$8 = -14 + 2g$

$+14 \quad +14$

$\frac{22}{2} = \frac{2g}{2}$

If $11 = g$

then $g = 11$

Ex6 $2(x - 3) = 3(x + 6)$

$2x - 6 = 3x + 18$

$-2x \quad -2x$

$-6 = x + 18$

$-18 \quad -18$

If $-24 = x$

then $x = -24$

6 $-8(x + 1) = -(-1 - x)$

$-8x - 8 = 1 + x$

$-x \quad -x$

$-9x - 8 = 1$

$+8 \quad +8$

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

$x = -1$

Ex7 $-2(a - 1) = -3(a + 7)$

$-2a + 2 = -3a - 21$

$+3a \quad +3a$

$a + 2 = -21$

$-2 \quad -2$

$a = -23$

7 $-4(b + 5) = 6(b - 3)$

$-4b - 20 = 6b - 18$

$-6b \quad -6b$

$-10b - 20 = -18$

$+20 \quad +20$

$\frac{-10b}{-10} = \frac{2}{-10}$

$b = -\frac{1}{5}$

Ex8 $-5(x + 8) = 7(x - 4)$

$-5x - 40 = 7x - 28$

$+5x \quad +5x$

$-40 = 12x - 28$

$+28 \quad +28$

$\frac{-12}{12} = \frac{12x}{12}$

$-1 = x$

8 $9(2x + 3) = -6(x + 2)$

$18x + 27 = -6x - 12$

$+6x \quad +6x$

$24x + 27 = -12$

$-27 \quad -27$

$\frac{24x}{24} = \frac{-39}{24}$

$x = \frac{-39}{24} = \frac{-13}{8}$

Ex9 An equation is solved as shown. Between which two steps is an error made? Explain the error.

$-9(x - 1) = 3(x + 9)$

$-9x - 9 = 3x + 27$ (should be +)

$-9 = 12x + 27$

$-36 = 12x$

$-3 = x$

9 An equation is solved as shown. Between which two steps is an error made? Explain the error.

$-4(x + 7) = 2(x - 4)$

$-4x - 28 = 2x - 8$

$-28 = -2x - 8$

$-20 = -2x$

$10 = x$