BE-1A | MONDAY 10-4-10

1. $-12-9$
2. $-12+9$
3. $-12(9)$
4. $-12 \div 9$
5. $-\frac{3}{4}-\frac{2}{3}$
6. $-12-(-9)$
7. $\frac{5}{3} \div \frac{2}{5}$
8. $5 \div \frac{1}{2}$

SIGNS: +, − SSA, KSS, DSS, BOW (+ (−)) ·, ÷ SPDN

FRACTIONS: +, − COMMON DENOMINATOR · (tops · tops)/(bottoms · bottoms) ÷ FLIP AND MULTIPLY

1. $-12-9 = \boxed{-21}$
2. $-12+9 = \boxed{-3}$
3. $-12(9) = \boxed{-108}$
4. $\frac{-12}{9} = \boxed{-\frac{4}{3}}$
5. $-\frac{3}{4}-\frac{2}{3}$
   $-\frac{9}{12}-\frac{8}{12} = \boxed{-\frac{17}{12}}$
6. $-12 + (-9)$
   $-12+9 = \boxed{-3}$
7. $\frac{5}{3} \div \frac{2}{5} = \frac{5}{3} \cdot \frac{5}{2} = \boxed{\frac{25}{6}}$
8. $5 \div \frac{1}{2} = \frac{5}{1} \cdot \frac{2}{1} = \frac{10}{1} = \boxed{10}$

- RETURN graded Quiz 6 (time permitting)

Lets look at "undos" If I start with $+5$ and $+2$, how do I undo $+2$?

$$+5 \quad +2$$
$$\underline{\qquad -2 \qquad}$$
$$+5$$

If I start with $+8$ and -2, how to undo?

$$+8 \quad -2$$
$$\underline{\qquad +2 \qquad}$$
$$+8$$

* Addition and subtraction undo each other.

(EX) $x + 27 = -3$ Goal, get x by itself

x = some number

$+1x$ by itself

Use GRE and undos

$x + 27 = -3$ Complete equation

$-27 \quad -27$ What you "undo" to each side

$\boxed{x = -30}$ Solution

CK $x + 27 \stackrel{?}{=} -3$

$(-30) + 27 \stackrel{?}{=} -3$

$-3 \stackrel{?}{=} -3$ ✓

What does it mean to "solve" an equation like $x + 27 = -3$?

Solve an equation } means find all values (numbers) for x that, when substituted (use parentheses) for x make a TRUE expression.

We are going to use "undos" and the GRE to solve.

GRE Golden Rule of Equations

"Whatever you do to ONE side, do to the other."

$x + 27 = -3$

LEFT SIDE | RIGHT SIDE

From the Golden Rule (of life) ⇒ "Do unto others as you would have others do unto you."

Chapter 3-2, Solving Equations by Using Addition and Subtraction

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(Ex 1) Pg 129

$m - 48 = 29$

$+48 \quad +48$

$\boxed{m = 77}$

CK $(77) - 48 \stackrel{?}{=} 29$

$29 \stackrel{?}{=} 29$ ✓

(Ex 2)

$21 + 8 = -18$

$-21 \quad -21$

$\boxed{8 = -39}$

CK $21 + (-39) \stackrel{?}{=} -18$

$-18 \stackrel{?}{=} -18$ ✓

(Ex)

$x - 12 = -27$

$+12 \quad +12$

$\boxed{x = -15}$

CK $(-15) - 12 \stackrel{?}{=} -27$

$-27 \stackrel{?}{=} -27$ ✓

(Ex)

$k + 63 = 92$

$-63 \quad -63$

$\boxed{k = 29}$

CK $(29) + 63 \stackrel{?}{=} 92$

$92 \stackrel{?}{=} 92$ ✓

(EX 4) PG 130 $g + \frac{3}{4} = -\frac{1}{8}$

$-\frac{3}{4} \quad -\frac{3}{4}$

$\boxed{g = -\frac{7}{8}}$

$-\frac{1}{8} - \frac{3}{4}$

$-\frac{1}{8} - \frac{6}{8} = -\frac{7}{8}$

CK $(-\frac{7}{8}) + \frac{3}{4} \stackrel{?}{=} -\frac{1}{8}$

$-\frac{7}{8} + \frac{6}{8} \stackrel{?}{=} -\frac{1}{8}$ ✓

$-\frac{1}{8} = -\frac{1}{8}$

WHEN WRITING EQUATIONS FROM "VERBAL" EXPRESSIONS, FIND THE EQUALS SIGN, THEN WRITE LEFT & RIGHT SIDES

↓

(EX) IS, EQUALS, IS THE SAME AS,

(EX 5) PG 130 A number increased by 5 is equal to 42

$N + 5 = 42$

$-5 \quad -5$

$\boxed{N = 37}$

CK $(37) + 5 \stackrel{?}{=} 42$ ✓

- HOMEWORK: Pg 131 # 4 to 10