

BE-1A

Monday 10-5-09

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

• $\frac{(\text{tops} \cdot \text{tops})}{(\text{bottoms} \cdot \text{bottoms})}$ ÷ 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 $-12 \overset{+}{-} (-9)$

$-12 + 9 = \boxed{-3}$

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?

$$\begin{array}{r} \$5 \\ - \$2 \\ \hline \end{array}$$

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

$$\begin{array}{r} \$8 \\ + \$2 \\ \hline \end{array}$$

* Addition and subtraction undo each other.

(EX)

$$X + 27 = -3$$

Goal, get X by itself

X = some number

↑
+1X by itself

$$X + 27 = -3$$

$$\begin{array}{r} -27 \quad -27 \\ \hline \end{array}$$

USE GRE AND UNDO

COMPLETE EQUATION

What you "undo" to each side

$$\boxed{X = -30}$$

Solution

$$\underline{\underline{CK}} \quad X + 27 \stackrel{?}{=} -3$$

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

$$-3 \stackrel{?}{=} -3 \quad \checkmark$$

What does it mean to "solve" AN
Equation like $X + 27 = -3$?

Solve AN } MEANS FIND ALL VALUES (NUMBERS)
Equation } for X that, when substituted
for X MAKE A TRUE USE PARENTHESES
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."

$$\begin{array}{ccc} X + 27 & = & -3 \\ \text{LEFT SIDE} & \left\{ \begin{array}{l} \text{RIGHT SIDE} \end{array} \right. & \end{array}$$

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

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

EX1
Pg 129

$$\begin{array}{r} m - 48 = 29 \\ + 48 \quad + 48 \end{array}$$

$$\boxed{m = 77}$$

$$\begin{array}{r} \underline{\underline{CK}} \quad (77) - 48 \stackrel{?}{=} 29 \\ 29 \stackrel{?}{=} 29 \checkmark \end{array}$$

EX2

$$\begin{array}{r} 21 + g = -18 \\ -21 \quad \quad -21 \end{array}$$

$$\boxed{g = -39}$$

$$\begin{array}{r} \underline{\underline{CK}} \quad 21 + (-39) \stackrel{?}{=} -18 \\ -18 \stackrel{?}{=} -18 \checkmark \end{array}$$

EX

$$\begin{array}{r} x - 12 = -27 \\ +12 \quad +12 \end{array}$$

$$\boxed{x = -15}$$

$$\begin{array}{r} \underline{\underline{CK}} \quad (-15) - 12 \stackrel{?}{=} -27 \\ -27 \stackrel{?}{=} -27 \checkmark \end{array}$$

EX

$$\begin{array}{r} k + 63 = 92 \\ -63 \quad -63 \end{array}$$

$$\boxed{k = 29}$$

$$\begin{array}{r} \underline{\underline{CK}} \quad (29) + 63 \stackrel{?}{=} 92 \\ 92 \stackrel{?}{=} 92 \checkmark \end{array}$$

EX 4
Pg 130

$$g + \frac{3}{4} = -\frac{1}{8}$$

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

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

$$\left\{ \begin{array}{l} -\frac{1}{8} - \frac{3}{4} \\ -\frac{1}{8} - \frac{6}{8} = -\frac{7}{8} \end{array} \right.$$

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

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

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

When writing equations from "verbal" expressions,
FIND THE EQUALS SIGN, THEN WRITE LEFT & RIGHT SIDES

EX $\downarrow$ IS, EQUALS, IS THE SAME AS,

EX 5
Pg 130

A number increased by 5 is equal to 42

$$N + 5 = 42$$

$$-5$$

$$-5$$

$$\boxed{N = 37}$$

$$\text{CK } (37) + 5 \stackrel{?}{=} 42 \quad \checkmark$$

• Homework: Pg 131 # 4 to 10