Name: Notes Date: 10-16-15 Section 4-2D

# 4-2D Solving One-Step Equations with Rational Numbers

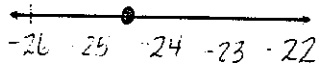
REMEMBER

1. Decimals.
   a. Add or Subtract – must line up decimal point
   b. Multiply – add up all decimal places in both numbers & place that many decimal places in answer
   c. Divide – cannot divide by decimal, must move decimal point behind last digit, then move decimal point inside same number of places
2. Fractions:
   a. Add or Subtract – must have a common denominator
   b. Multiply – change mixed numbers to improper fractions, cross cancel, then multiply across
   c. Divide – change mixed numbers to improper fractions, "keep (1st fraction the same)→change (division to multiplication) → flip (2nd fraction)" cross cancel, then multiply across

Note: 1. Always follow INTEGER RULES.
2. Cannot cross cancel across the equal sign.

**Ex. 1:** Solve each equation. Graph your solution on a number line.

**A.** $x + 15.2 = -9.278$

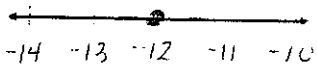



$x + 15.2 = -9.278$

$-15.2 \quad -15.2$

$x = -24.478$

**B.** $y - 9.25 = -21.75$



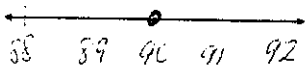

$y - 9.25 = -21.75$

$+9.25 \quad +9.25$

$y = -12.50$

$y = -12.5$

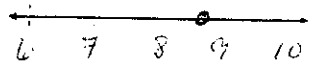
**C.** $0.6x = 54$




$\frac{0.6x}{0.6} = \frac{54}{0.6}$

$x = 90$

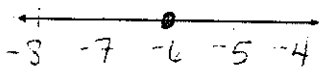
**D.** $\frac{x}{-2.13} = -4.16$




$\frac{-2.13}{1} \cdot \frac{x}{-2.13} = -4.16 \cdot -2.13$

$x = 8.8608$

**E.** $4 = -\frac{2}{3}y$

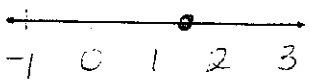



$\frac{3}{-2} \cdot \frac{4}{1} = -\frac{2}{3}y \cdot \frac{3}{-2}$

$-6 = y$

$y = -6$

**F.** $x - \frac{7}{9} = \frac{5}{7}$




$x - \frac{7}{9} = \frac{5}{7} = \frac{45}{63}$

$+\frac{7}{9} \quad +\frac{7}{9} = \frac{49}{63}$

$x = \frac{94}{63}$

$x = 1\frac{31}{63}$

**HW: 4-2D Worksheet**