Name _____ Core _____ Date _____

# Practice Packet #15

**5-57.** Determine the coordinates of each point of intersection without graphing. (Solve algebraically by using the Equal Values Method)

*a.* $y = -x + 8$ $\qquad\qquad$ $y = x - 2$

Point of Intersection ( , )

*b.* $y = -3x$ $\qquad\qquad$ $y = -4x + 2$

Point of Intersection ( , )

**5-58.** Change each equation below into $y = mx + b$ form. (Isolate y to one side, everything else to the other side)

a. $y - 4x = -3$

b. $3y - 3x = 9$

c. $3x + 2y = 12$

d. $2(x - 3) + 3y = 0$

**5-59.** Mailboxes Plus sends packages overnight for $5 plus $0.25 per ounce. United Packages charges $2 plus $0.35 per ounce. Find out the weight a package would be for it to cost the same amount to ship from either location.

Set up an equation for each shipping location. Then use Equal Values method to solve.
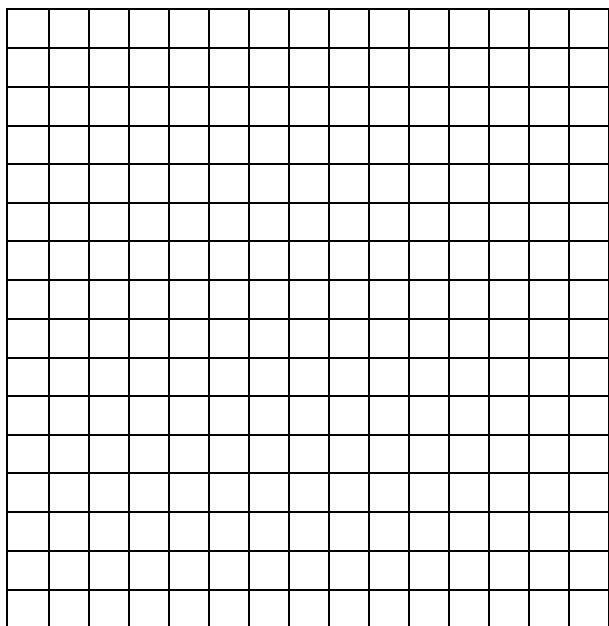
Mailboxes Plus Equation:                    United Packages:

**5-60.** Solve for $x$. Eliminate fractions first, if necessary, by finding the LCM.

a.

$$\frac{2}{3} = \frac{x}{4}$$

b.

$$\frac{2}{3} = \frac{x}{4} + \frac{x}{3}$$

**Graphing Review.  Plot points (-3, -2) and (-2, 1) below and draw a line connecting them.**



Find the y-intercept (starting point) and slope (growth) of the line.  Then write the equation in y=mx+b format.

y-intercept:

Slope:

Equation:

**5-61.** **Solve each Equation.  Check your Answer.**

a.  $3x + 7 = -x - 1$

b.  $1 - 2x + 5 = 4x - 3$

c.  $-2x - 6 = 2 - 4x - (x - 1)$

d.  $3x - 4 + 1 = -2x - 5 + 5x$