

Mission #2: Solving for y

Objective: By the end of this mission, you will be able to REWRITE equations so that they are in slope-intercept form, by solving for y.

Instructions: (Team member closest to the courtyard door please read the instructions OUT LOUD)

1. **EVERY team member** must **write their name and complete** the **six practice problems** on the worksheet (use the step-by-step guide below)
2. Once done, please **use the Answer Key** included in the "Top Secret" folder of your packet to **check your work**.
3. When all members have complete understanding of this objective, **place ALL completed worksheets and turn it in to the teacher**
4. **You are now ready to complete your HOMEWORK from the teacher**

Step-By-Step Guide (solving for y)

Example: **Rewrite** $-3x - 4y = 12$ in slope-intercept form.

Step 1:

MOVE the x-term to the opposite side of the equation from y by using the inverse operation (either ADDITION or SUBTRACTION)

Then simplify

Step 2:

Divide ALL terms by the coefficient for y (the number attached to y)

Then simplify

Step 3:

Simplify any fractions

inverse of - is + < $-3x - 4y = -12$ > cannot combine unlike terms so just write them side by side

$+3x \downarrow +3x$

$-4y = 3x - 12$

$\frac{-4}{-4} \quad \frac{3x}{-4} \quad \frac{-12}{-4}$

negative divided by negative is positive

$y = \frac{3}{-4}x + 3$

$y = -\frac{3}{4}x + 3$