9 Academic Math Day 3: Standard From Ax+By+c = 0

Lesson: Rearranging from Standard Form (Ax + By + C = 0) to Slope-Intercept Form (y = mx + b)

When an equation is in slope-intercept form (y=mx+b) we can easily identify the slope and y-intercept. It also makes graphing the equation a quick task and allows us to easily enter equations into the graphing calculator.

To rearrange an equation to this form, solve the equation for y (get the y by itself).

1. Rearrange 2x - 2y + 1 = 0 to slope/y-intercept form.

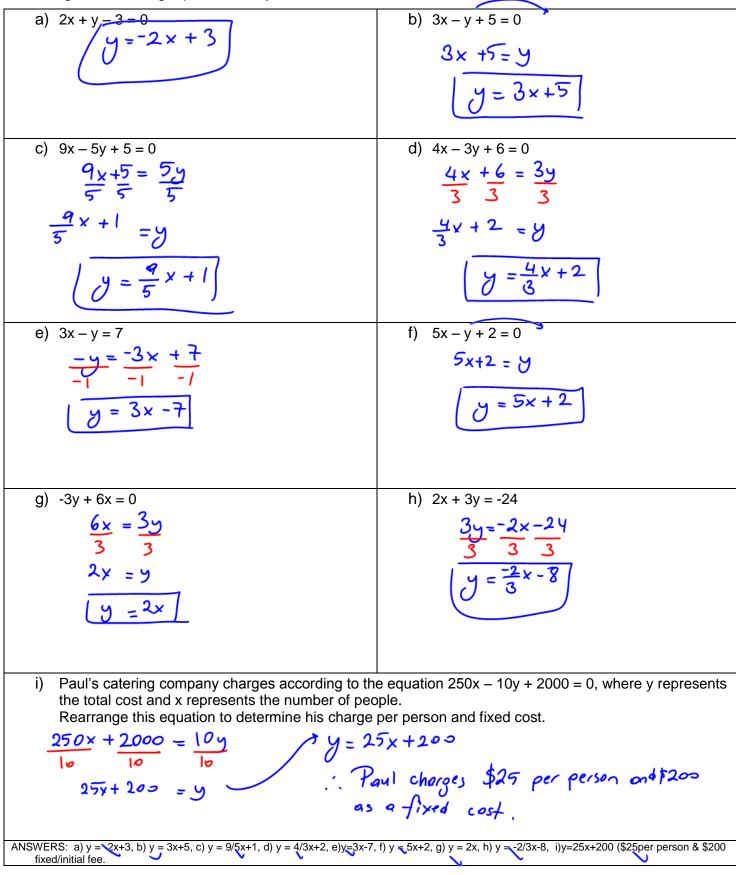
Steps	Work
 → Isolate the 'y-term' by eliminating the other terms. Applying the opposite operation to both sides of the equation to do this. → Write the x term first, and the constant term second (keeping with the form y = mx + b) 	2x + 2y + 1 = 0 2x + 2y + 1 = 0 2x + 2y + 1 = 0 2x - 1 2y = -2x - 1
→ Divide both sides by the coefficient of y. Be careful, it may be negative. When dividing an entire side by the coefficient, EVERY TERM must be divided.	$\frac{2y}{2} = \frac{-2x}{2} = \frac{-1}{2}$
\rightarrow Place your fractions in lowest terms.	$y = -x - \frac{1}{2}$

***if the equation is in standard form (=0) and the coefficient of the 'y-term' is negative, try eliminating the 'y-term' first and see what happens...

2. Rearrange the following to slope/y-intercept form.

Practice: Rearranging the equation of a line into y = mx + b form

Rearrange the following equations into y = mx + b form



Complete: Textbook p.312 1, 3, 4(not c), 5, 10, 11