Homework #201 (Rearranging Linear Equations, Standard Form)

Work all problems on notebook paper using a pencil.

A. For #1 – 6, first, clear any fractions if necessary. Then solve for y. Write your answers in the form $y =$ ____ $x +$ ____. (You may have some fractions in your answers, and that is okay.)

1. $2x+3y=24$	2. $8x=4y-10$	3. $4x-9y=18$
4. $\frac{1}{3}x+\frac{1}{5}y=2$	5. $2(x-5)=3(y+4)$	6. $\frac{x-1}{3}=\frac{2-y}{4}$

B. For #7 - 12, first clear any fractions if necessary. Then rearrange the equation to Standard Form ($Ax+By=C$). Remember to keep A positive. There should not be any fractions in your answers.

7. $4y=6-3x$	8. $3+\frac{1}{5}x=2y$	9. $3(x-4)=2(y+8)$.
10. $y=\frac{2}{3}x+5$	11. $y=-\frac{3}{4}x+1$	12. $y=2x+7$

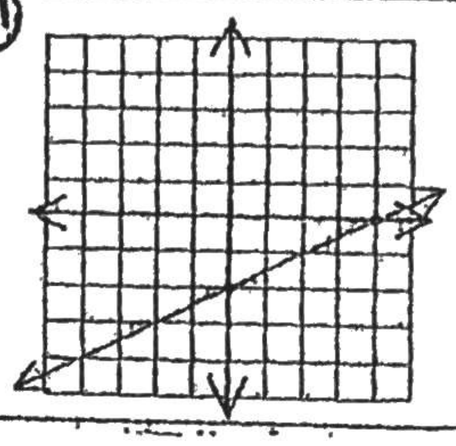
C. For #13 - 15, first clear any fractions if necessary. Then solve for y. Write your answers in the form $y =$ ____ $x +$ ____. (You may have some fractions in your answers, and that is okay.)

13. $y+3=-5(x-4)$	14. $y-7=\frac{1}{2}(x+9)$	15. $y+8=\frac{3}{7}(x-5)$

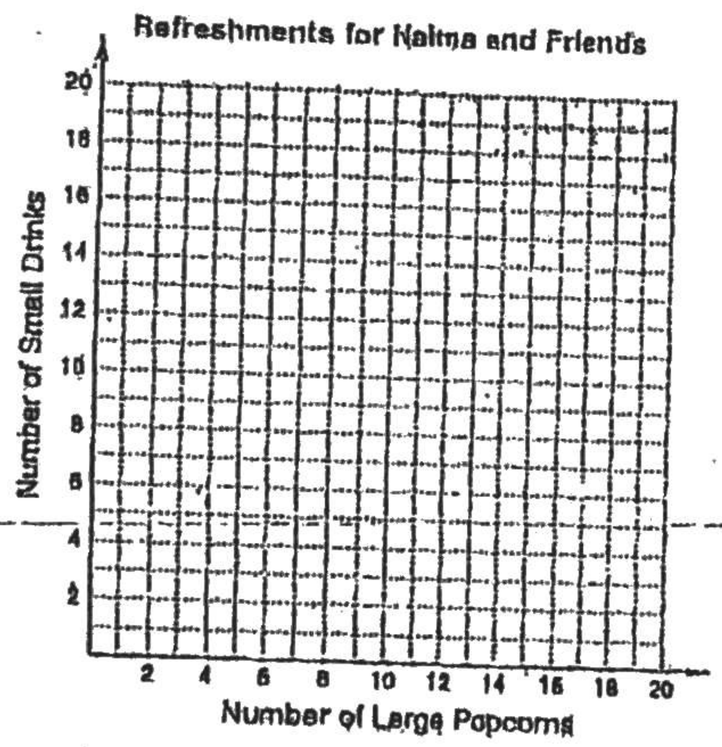
D. For #16 - 18, first clear any fractions if necessary. Then rearrange the equation to Standard Form ($Ax+By=C$). Remember to keep A positive. There should not be any fractions in your answers.

16. $y+6=-4(x-3)$	17. $y+10=\frac{4}{3}(x-5)$	18. $y-7=-\frac{6}{5}(x-4)$

For 19–23, find the x-intercept and y-intercept of each linear function. Write your answers as ordered pairs

(19) $3x+4y=12$	(20) $3x-8y=24$	(21) 
(22) $y=-\frac{2}{3}x+12$	(23) $y-15=\frac{1}{3}(x+12)$	

(24) Naima has $40 to spend on refreshments for herself and her friends at the movie theater. The equation $5x + 2y = 40$ describes the number of large popcorns x and small drinks y she can buy. Graph this function and find its intercepts.



(25) Turner is reading a 400-page book. He reads 4 pages every 5 minutes. The number of pages Turner has left to read after x minutes is represented by the function $f(x) = 400 - \frac{4}{5}x$. Graph this function and find its intercepts.