**Parallel Lines Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_ Hour \_\_\_**

**Slope and Equation Review**

1) Calculate the equation of the line which passes through C(-8, -3) and F(4,6)

 a) Plot the points. Is the slope positive or negative? \_\_\_\_\_\_\_\_\_\_\_\_\_

 b) Calculated Slope of CF =

 c) Plug coordinates and slope into slope-intercept form

 y = m(x) + b

 d) Solve for y-intercept (b). Does it look right?

 e) Write the equation as y = #x + #:

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) Calculate the equation of the line which is parallel to the first line, and goes through the point (5,‑1).

 a) Sketch the new line lightly in pencil. Where does it appear to hit the y-axis?

 b) Slope of ║line = \_\_\_\_\_\_\_\_

 c) You know the slope and a point on the new line, so use the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 form of a linear equation, which has the form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 d) Plug in m and use (5,-1) as (x1, y1). There! You have the point-slope form of the equation!

 e) Now, solve that for y in order to convert it to y = mx + b (slope-intercept) so you can check to see if the intercept matches your earlier estimate.

3) Use the procedure from the previous problem in order to find the line which goes through (-5, 8), and is parallel to the line $y=-\frac{2}{3}x+1 $