1. Write the equation of the line that passes through these two points in both Slope-Intercept and Point-Slope Forms.

$(5,-3)\&(8,7)$

$m = \frac{10}{3}$

PT-SLOPE $(5,-3)$

$y+3 = \frac{10}{3}(x-5)$

or $(8,7)$

$y-7 = \frac{10}{3}(x-8)$

$y-7 = \frac{10}{3}x - \frac{80}{3}$

$+7 \quad +7$

$y = \frac{10}{3}x - \frac{59}{3}$

2. Use this line for parts a and b. $y = -4x + 11$

a) Write the equation of the line that is perpendicular to the above line and passes through the point $(9,1)$

$m = \frac{1}{4}$

$y-1 = \frac{1}{4}(x-9)$

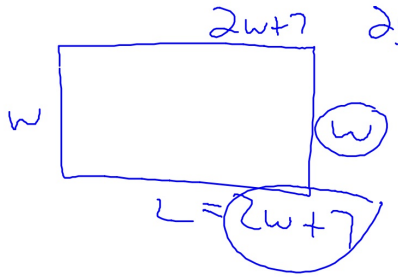
b) Write the equation of the line that is parallel to the above line and passes through the point $(-14,37)$

$(x-x_1)m = y-y_1$

$m = -4$

$y-37 = -4(x+14)$

3. The length of a rectangle is seven more than twice the width. If the perimeter of the rectangle is 44in find the dimensions of the rectangle.



$2w+7 + 2w+7 + w + w = 44$

$6w + 14 = 44$

$w = 5$

$L = 17$

ANS 5×17