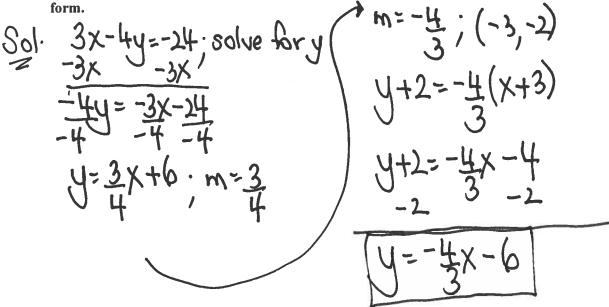
QUIZ#2

Please show all of your work for maximum credit. Good Luck!!!

1. (3 points) Find an equation of the line that passes through the point (-3, -2) and is perpendicular to the line 3x - 4y = -24. Write your final answer using the slope-intercept form.



2. (3 points) For the given function: $f(x) = \frac{2+x}{x-1}$; find $f\left(\frac{1}{t+1}\right)$ and completely simplify it to simple fraction.

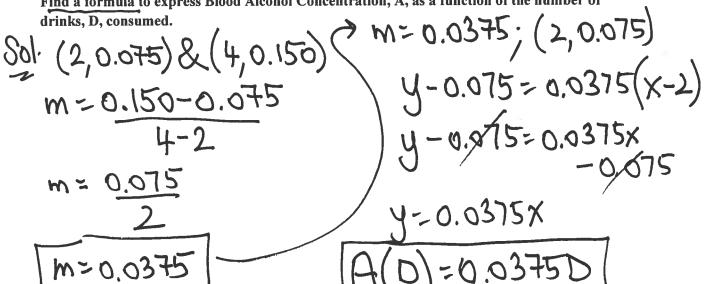
Sol.
$$f(x) = 2+x$$

 $x-1$
 $f(\frac{1}{t+1}) = 2+ \frac{1}{t+1}$
 $= (t+1) + \frac{1}{t+1} = 2(t+1) + \frac{1$

3. (4 points) The accompanying data show rounded average values for Blood Alcohol Concentration (BAC) for 100-lb person, according to the number of drinks consumed.

# of					40
Drinks	2	4	6	8	10
100 lb	0.075	0.150	0.225	0.300	0.375

(a) The data on BAC for a 100-lb person changes at a constant average rate of change. Find a formula to express Blood Alcohol Concentration, A, as a function of the number of drinks D consumed



(b) Interpret the slope and the vertical intercept of the formula found in part (a).

Vertical intercept = (0,0) When O drinks are consumed, BAC is O, which seems reasonable.