Name: _____ **Show work needed to justify your answer.** Date: _____

HW: # 8a: Math IBSL - Standard 8 - Linear Functions

5 points

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1 Use your GDC to find the point of intersection for each pair of lines:

a $y = 2x - 1$ and $y = 3x + 1$

b $y = 2x + 1$ and $4x + 2y = 8$

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3 The following equations give the weekly salary an employee can earn at two different sales jobs, where x is the amount of sales in euros and y is the weekly salary in euros. Find the amount of sales for which the weekly salaries would be equal.

$$y = 0.16x + 200$$

$$y = 0.10x + 300$$

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4. Consider the functions $f(x) = -x + 5$, $g(x) = 2x + 3$ and $h(x) = \frac{1}{3}x - 4$. Find the following:

a $f(3)$ **b** $g(0)$

c $h(6) - g(1)$ **d** $f(2) + g(-1)$

e $(f \circ g)(4)$ **f** $(h \circ f)(-7)$

g $(f \circ g)(x)$ **h** $(h \circ f)(x)$