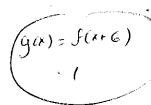
Answer the questions in the spaces provided. Show all necessary work. If you run out of space, use the back side and leave a message to indicate that you have done so. If you have any questions, raise your hand and I will come try to answer.

Let f(x) be a function whose domain is $0 \le x \le 10$ and whose range is $-12 \le y \le 12$.

(a) (5 points) Write a function, g(x), so that this graph of the composition f(g(x)) will look like the graph of f(x), shifted to the left by 6. State the domain and range of f(g(x)).

Fix $u \, fn$, g(x) = x + 6 $-1 \, on (a)$, $Pomain: -6 \le x \le 4$ (shofted left 6) $OR \, on$ $Range: -12 \le y \le 17$ (unchanged) $g(x) = \frac{1}{2} \left(\frac{1}{2} \left(\frac{1}{2} \right) \right)$



(b) (5 points) Write a function, h(x), so that the graph of the composition h(f(x)) will look like the graph of f(x), shifted up by 13. State the domain and range of h(f(x)).

(c) (5 points) Compute the domain of f(5x-8)

(d) (5 points) Compute the range of $-\frac{1}{4}f(x) - 4$

$$-12 \leq f(x) \leq 12$$