1. Points A and B on the graph of $g$ define an interval of width $h$. The horizontal coordinate of A is $x$.
   
   a) Represent the coordinates of points A and B. Write each ordered pair on the graph by its respective point. (Note: A and B are only labels; they don't have values.)
   
   b) Write an expression for the constant rate of change that realizes the same change in $y$ as $g$ for the given interval of width $h$. Put it in the large box below. ↓
   
   c) (Part c's answer goes in the small box above at left.) If $x$ varies and $h$ is constant, the expression you wrote in b) is a function of $x$. Use appropriate notation we've learned to name / define this function.

2. Make a rough sketch of the function you defined in #1 (for all $x$, not just the paused value shown in the given graph).

3. a) Given an accumulation function whose output is given as $c(x)$, write the general form of $c$'s rate of change function. $r_c(x) =$
   
   b) If $c(x) = x \sin(x)$, rewrite your expression from part a) by applying the rule of $c$. $r_c(x) =$
   
   c) The rate of change of $c$ is represented in closed form as $r_c(x) = \sin x + x \cos x$. Use this fact to represent $c$ in open form. (i.e. as an integral.)

4. Suppose $f$ is an accumulation function, and $f(-3) = 5$ and $r_f(-3) = 10$ (when $h$ is really small).
   
   a) Explain in a sentence(s) the meaning of the rate of change value given above.

   b) Use the information given to estimate the value of $f(-2.8)$. (Don't hunt for a procedure or method to reproduce. Do it yourself by applying meanings of ROC and the given values/info!)
Do not turn this sheet over until you are instructed to begin.