7. (7 points) Use the function

$$q(x) = x^{\sin(x)}$$

to give the *limit definition* for g'(2) [No need to simplify or approximate the limit.]

8. (7 points) The figure below shows y = f(x) and a line tangent to f at x = 0.5. Given that f(0.5) = 2, f'(0.5) = -3, and h = 0.1, determine the values of y_1 , y_2 , and x_2 . [Note: x and y are different scales on the graph.]

