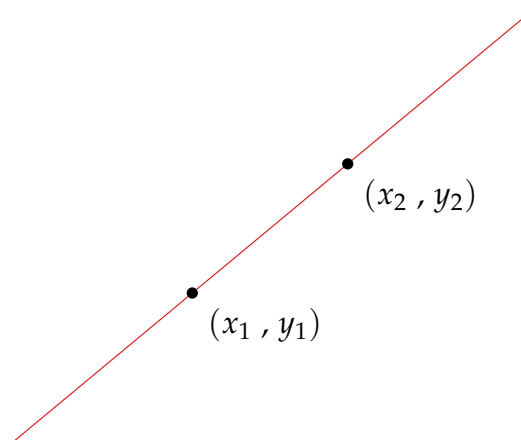


## Learning Assignment #3

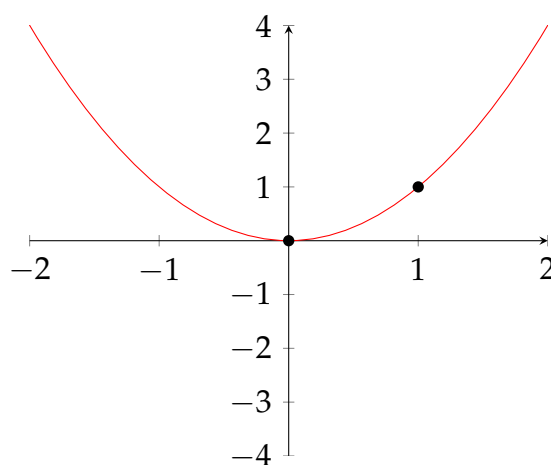
Name \_\_\_\_\_

1. Suppose a line passes through the points  $(x_1, y_1)$  and  $(x_2, y_2)$ , as shown below:



What is the slope of this line?

2. Let  $f(x)$  be the function given by the graph below:



(1.a) Use a ruler to draw the tangent line to the graph of the function at the point  $(1, 1)$ . Find the slope of this line (Hint: You need to find two points this line goes through. Then you need to use the slope formula you wrote down above).

(1.b) Use a ruler to draw the tangent line to the graph of the function at the point  $(0, 0)$ . Find the slope of this line.

(1.c) Use a ruler to draw the secant line through the points  $(0,0)$  and  $(1,1)$ . Find the slope of this line.

(1.d) With the information above, evaluate

$$f(0) =$$

$$f'(0) =$$

$$f(1) =$$

$$f'(1) =$$