

Calculus Quiz

Name \_\_\_\_\_

Let  $f(x) = x^3 - x^2 - x$

1. Find  $f'(x)$

2. Find  $f''(x)$

3. Fill in the following table.

$x$	$y$	$y'$	$y''$
0			
2			
		0	
		0	
			0

Hint: the first derivative factors, so the zeros are relatively easy to find.

4. Describe what the curve is doing at each of the points in the above chart. (draw a little picture).