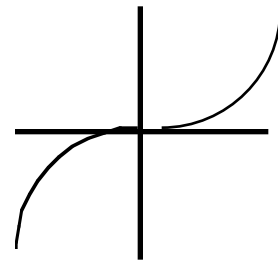
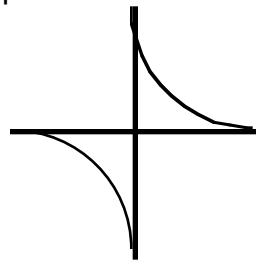
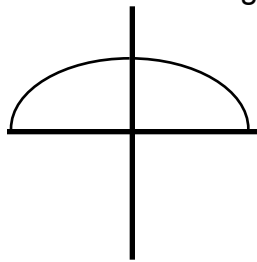
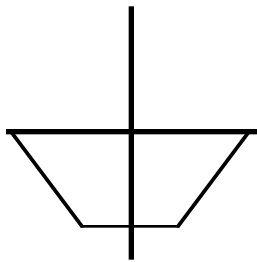


Pre Calc BC

1- Slope Function

Name:

1. Sketch the slope function for each graph below.

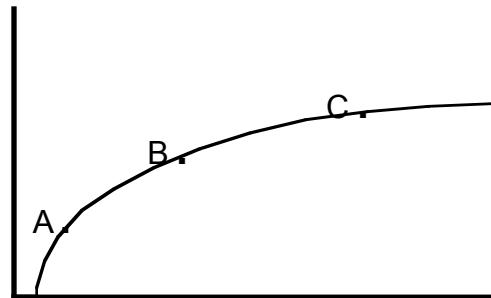


2. Make a table of values for $y = x^2$

- a) Use increments of 0.1 to estimate the slope of the tangent at $x = 4$
- b) Do the same thing with increments of 0.01
- c) Verify using dy/dx on your calculator
- d) Determine the slope of the tangent at $x = 5$. Form a hypothesis

3. For the graph of $f(x)$ shown at right arrange the following values in order from smallest to largest.

- The slope of the line \overline{AB}
- The slope of the tangent at A
- The slope of the tangent at B
- The slope of the tangent at C
- The number 0



4. Sketch a smooth curve whose slope...

- a) ... is everywhere positive and increasing gradually
- b) ... is everywhere negative and increasing gradually

5. The table below shows the values of $f(x)$ near $x = 2$. Use it to estimate $f'(2)$.

x	1.998	1.999	2.000	2.001	2.002
y	7.976	7.988	8.000	8.012	8.024

6. For the graph of $f(x)$ shown at right arrange the following values in order from smallest to largest.

0, 1, $f(2)$, $f'(2)$, $f'(4)$, $f(4) - f(2)$

