

Determine a scenario for the data graphed on the reverse side. What **CHARACTERISTIC** is being measured? What units are being used? Label the horizontal and vertical axes by naming the **CHARACTERISTIC** being observed and the **UNITS** used for measuring.

1. Describe the scenario represented by your graph:
2. What are the units for the x-values of your graph? \_\_\_\_\_
3. What are the units for the y-values of your graph? \_\_\_\_\_
4. Draw a tangent line to the graph at each point (A - G).
5. Agree as a group on the slope of each tangent line. Enter those values here:

Point A:  $m_{\text{tan}} =$  \_\_\_\_\_

Point E:  $m_{\text{tan}} =$  \_\_\_\_\_

Point B:  $m_{\text{tan}} =$  \_\_\_\_\_

Point F:  $m_{\text{tan}} =$  \_\_\_\_\_

Point C:  $m_{\text{tan}} =$  \_\_\_\_\_

Point G:  $m_{\text{tan}} =$  \_\_\_\_\_

Point D:  $m_{\text{tan}} =$  \_\_\_\_\_

Point H:  $m_{\text{tan}} =$  \_\_\_\_\_

6. Graph the value of the **SLOPE** of the tangent line on the same axis system. Connect those values with a smooth curve.

7. What are the units on your slope values? \_\_\_\_\_

8. Use appropriate units to describe what is happening at each point below:

POINT A:

POINT B:

POINT D:

POINT E:

POINT H:

Describe another point of interest on your graph and explain your reasoning.