## **Derivate Exploration Questions**

1. What can you say about the relationship between the tangent line and the derivative?

2. Input sin (x) into the function box. What do you notice about the value of the derivative when the function is increasing? When it is decreasing?

3. What do you notice about the tangent line when the derivative equals 0? What do you think it is telling you about the function when the derivative equals 0?