The Tangent as a Limit

Goal:
• Can determine the slope of a tangent line using limits as x approaches a point c AND as the distance between points, h, approaches 0.
Terminology:
• None
Reminders:

• Quiz Monday Oct 7
     • Test Friday Oct 11
     • Get evidence up to date!

Review: Determine the slope of the tangent line of $y = x^3$ at the point $x = 3$ to 2 decimal places.

On the board: Formalize your ideas above to find the slope of the function $f(x)$ at the point $x = c$.

Example: Determine the exact slope of the tangent line of the function $f(x) = 9 - x^2$ at the point $x = 3$.

Example: Determine the exact slope of the tangent line of the function $g(x) = \frac{2x+1}{x}$ at the point $x = c$.

Practice Problems: 1.4: # 1, 2, 7, 8,

9, 10