To find the slope of the tangent line for a parametrized curve, use the fact that
\[ \frac{dy}{dx} = \]

**Examples:**

Find an equation of the line tangent to the curve given by \( x = 2 \cos t, \ y = 1 + \cos(2t) \) at the point where \( t = \frac{\pi}{3} \).

Find an equation of the line tangent to the curve given by \( x = t^2 + 2t, \ y = t^3 - t \) at the point \( (3, 0) \).
Find the points on the curve $x = 4t - t^2$, $y = 1 + t^2$ where the tangent line is horizontal or vertical

**On Your Own**: (Thursday Lab): #3, 5, 7, 9, 13, 17, 21