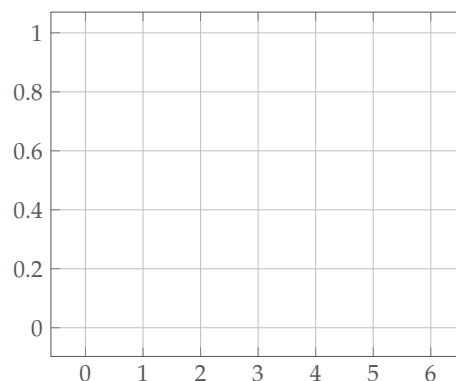
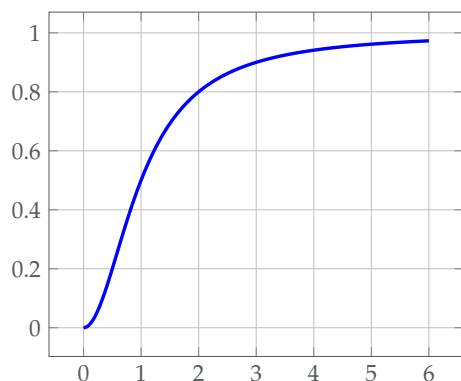


Math 141 Group Quiz 2

Names: _____

1. a. Let $f(t) = \frac{t^2}{t^2 + 1}$ be the percentage of CP students exposed to a contagious virus by day t . Using only the graph shown below, sketch the graph of $f'(t)$ on the empty graph:



- b. Use the quotient rule to find $f'(t)$. What is the equation of the line tangent to $f(t)$ at $t = 4$?

- c. The second derivative, denoted $f''(t)$, is the derivative of $f'(t)$. When is $f''(t) = 0$?

2. Find all values where the line tangent to $(x - 1)/(x + 1)$ is parallel to the line $x - 2y = 2$.

3. Find all values where the derivative of $\frac{1}{x} - \frac{1}{x^2} - \frac{1}{x^3}$ is equal to 0.