1. Suppose $f(x) = \sqrt[3]{x^2}$.
   (a) $f'(x) =$
   
   (b) Find the equation of the tangent line to the graph of $f(x)$ at the point $(8, f(8))$.

2. Suppose $g(t) = \frac{t^2}{t + 1}$.
   (a) $g'(t) =$
   
   (b) An object moving on a straight line is $g(t)$ feet from its starting position at time $t$ seconds. Find its velocity at time $t = 2$ seconds. (Include units in your final answer.)
1. Suppose \( f(x) = \frac{e^x}{x - 1} \).
   
   (a) \( f'(x) = \)

   (b) Find the equation of the tangent line to the graph of \( f(x) \) at the point \((0, f(0))\).

2. Suppose \( g(t) = \sqrt{t} + t^2 + 3 \).
   
   (a) \( g'(t) = \)

   (b) An object moving on a straight line is \( g(t) \) feet from its starting point at time \( t \) seconds. Find its velocity at time \( t = 4 \) seconds. (Include units in your final answer.)