1. Use a limit definition of the derivative to find the derivative of the function $f(x)=\frac{1}{x+1}$.
2. Use a limit definition of the derivative to find the derivative of the function $f(x)=\sqrt{x+5}$.
3. Use a limit definition of the derivative to find the derivative of the function $f(x)=3 x^{2}-2$.
4. Use a limit definition of the derivative to find the derivative of the function $f(x)=\frac{2}{3 x}$.
