

Example 1: The temperature, T , in degrees Fahrenheit, of a cold yam placed in a hot oven is given by $T = f(x)$, where x is the time in minutes since the yam was put in the oven.

- What is the sign of $f'(x)$? Why?
- What are the units of $f'(20)$?
- What is the practical meaning of the statement $f'(20) = 2$?

Example 2: Suppose $C(r)$ is the total cost of paying off a car loan borrowed at an annual interest rate of r percent.

- What are the units of $\frac{dC}{dr}$?
- What is the practical meaning of $\frac{dC}{dr}$?
- What is the sign of $\frac{dC}{dr}$?

Example 3: Let $f(t)$ be the number of centimeters of rainfall that has fallen since midnight, where t is the time in hours. Interpret the following in practical terms, giving units.

- $f(10) = 3.1$
- $f^{-1}(5) = 16$
- $f'(10) = 0.4$
- $(f^{-1})'(5) = 2$