

Exercise 71

A phone company charges for service according to the formula: $C(n) = 24 + 0.1n$, where n is the number of minutes talked, and $C(n)$ is the monthly charge, in dollars. Find and interpret the rate of change and initial value.

Solution

The initial value is the amount of money charged for zero minutes talked, or the base fee for using the service.

$$C(0) = 24 + 0.1(0) = 24$$

The rate of change is the slope, the amount of money charged per minute of talking,

$$m = 0.1,$$

which is 10 cents.