Exercise 19

For the following exercises, consider this scenario: The weight of a newborn is 7.5 pounds. The baby gained one-half pound a month for its first year.

Find the linear function that models the baby's weight W as a function of the age of the baby, in months, t.

Solution

Because the baby's weight increases at a constant rate, a linear function can be used to model it. The slope is 0.5, the rate that the baby's weight increases (in pounds per month), and the initial weight is 7.5 (in pounds).

$$W(t) = 0.5t + 7.5$$