

Answer on Question #64816 – Math – Algebra

A car rental company charges a one-time application fee of 25 dollars, 45 dollars per day, and 12 cents per mile for its cars.

Question

(A) Write a formula for the cost, C , of renting a car as a function of the number of days, d , and the number of miles driven, m .

Solution

Let C = total cost; d = number of days and m = number of miles. Then the cost is

$$C(d, m) = 25 + 45d + 0.12m \text{ (dollars)}$$

Answer: $C(d, m) = 25 + 45d + 0.12m$.

Question

(B) Use the equation to determine the total cost for a customer who rented the car for seven days and drove four hundred sixty-three miles?

Solution

If cost is given by $C(d, m)$, then

$$C(7, 463) = 25 + 45 \cdot 7 + 0.12 \cdot 463 = 395.56 \text{ (dollars)}$$

Answer: \$395.56.