

You want to rent a car for one day and have narrowed it down to two companies: Rent-a-Lemon and Drive-a-Wreck.

Rent-a-Lemon charges you \$45 a day plus \$0.25 per mile.

Drive-a-Wreck charges you \$60 a day plus \$0.17 per mile.

1. Write an equation for each company. Use the following variables:

$C$  = total charge

$m$  = # miles driven

Rent-a-Lemon Eq:

Drive-a-Wreck Eq:

2. If you only rent a car for one day, find the number of miles for which the two companies would charge you the same amount.

Answers

2. You want to rent a car for one day and have narrowed it down to two companies: Rent-a-Lemon and Drive-a-Wreck.

Rent-a-Lemon charges you \$45 a day plus \$0.25 per mile.

Drive-a-Wreck charges you \$60 a day plus \$0.17 per mile.

a. Write an equation for each company. Use the following variables:

$C$  = total charge

$m$  = # miles driven

Rent-a-Lemon Eq:

$$C = 45 + .25m$$

Drive-a-Wreck Eq:

$$C = 60 + .17m$$

2. If you only rent a car for one day, find the number of miles for which the two companies would charge you the same amount.

$$\begin{array}{r} 45 + .25m = 60 + .17m \\ - .17m \quad - .17m \\ \hline 45 + .08m = 60 \\ - 45 \end{array}$$

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$$\begin{array}{r} .08m = 15 \\ \hline .08 \quad .08 \\ \hline m = 187.5 \text{ miles} \end{array}$$