Solution

Let C. P be cost price

S.P be selling price

P be profit

%P be profit percent

Data

 $S.P = GH \notin 58,000.00$

%P = 22.5%

Assumption Selling Price = $Gh \notin 61,200.00$

Let's first find the Cost Price of the car.

C.P = S.P - P

Profit is not given but can use %P to get profit

Which is: $P = %P \times C.P.$ Which means when %P is given extract profit out of C.P.

Hence P = 22.5% x C.P

 $P = Gh \notin 0.225C.P$

Then substitute P in the general equation C.P = S.P - P

Which will give: C.P = S.P - (0.225C.P)

Group like terms: C.P + 0.225C.P = S.P

1.225C.P = S.P. but $S.P = GH \not\in 58,000.00$

 \therefore 1.225C.P = 58,000.00

Divide through by 1.225 to make C.P the subject

Which will give: $\frac{1.225}{1.225}$ C.P = $\frac{58,000.00}{1.225}$

$$C.P = Gh \notin 47,346.94$$

Since the cost price of the car is known.

We can now find the profit percentage of the Assumption Selling price.

If the car had been sold for Ghø61,200.00 the profit percent of the car will be:

$$\%P = \frac{P}{C.P} \ge 100$$

C.P is known which is 46,346.94

NB. Profit for the assumption selling price is not known. Which must be calculated using

$$P = S.P - C.P$$

= Gh¢ 61,200.00 - Gh¢ 46,346.94

= Gh¢ 13,853.06

 \therefore Profit of the assumption selling price is Ghø 13,853.06. Now profit percent can be calculated since assumption Profit is now known.

$$%P = \frac{P}{C.P} \times 100$$
$$= \frac{13,853.06}{46,346.94} \times 100$$
$$= 0.2926 \times 100$$

= 29.26% (2.dp)

 \therefore 29.26% would have been the profit percent if the car had been sold for Gh¢61,200.00.