Joshua makes 6.25 per hour making sundaes at Diary Kwik. Last week, he made $261 including tips. How many hours did Joshua work?

Solution.

Let n hours be the workweek and p% the size of the tip.

Then we have an equation

$$6.25n(1+p)=261.$$

Resolving it with respect to n we have

$$n=261/(6.25(1+p)).$$

This expression may be used for evaluation of n. For example in US the size of the tip equals (15-20)%.Then for n we have

$$261/(6.25*1.2)<=n<=261/(6.25*1.15)$$

or

$$34.8<=n<=36.3.$$

So,the workweek equals 35-36 hours.