

Answer on Question #38058, Math, Complex Analysis

Problem.

A boy purchased some chocolates from a shop for Tk. 120. If the price of the chocolate was reduced by 20%, he could have purchased 2 more chocolates. How many chocolates did he buy?

Solution.

So, the price of one chocolate bar is $120/x$, where x is the number of chocolates. Thus, we have the equation (there is the sum of money which he spent in the left part and the sum of money which he could spend if the price of the chocolate is reduced by 20%):

$$120 = \frac{120}{x} \cdot (1 - 0.2) \cdot (x + 2).$$

$$120x = 96 \cdot (x + 2).$$

$$24x = 192.$$

$$x = 8 \text{ chocolates.}$$

Answer.

8 chocolates.