

**Answer on Question#38906 - Math - Other**

**Question:** The LCM (Least Common Multiple) of two numbers is 1260 and their GCD (Greatest Common Divisor) is 18. One of the numbers is 180. Find the other number.

**Solution.** The product of two numbers  $a$  and  $b$  is equal to the multiple of their Least Common Multiple and Greatest Common Divisor:

$$a \times b = LCM \times GCD.$$

Since we are given that  $LCM = 1260$ ,  $GCD = 18$  and  $a = 180$ , this can be re-written as

$$180 \cdot b = 1260 \cdot 18,$$

so we have

$$b = \frac{1260 \cdot 18}{180},$$

or

$$b = 126.$$

**Answer.** The other number is 126.