

**Answer on Question#39729 – Math – Other**

A store offers 25% off merchandise that is already discounted by 30%. Is this the same as 55% discount off the original price? Explain your answer

**Solution:**

Let  $x$  be original price for merchandise and  $x - 0,55x = 0,45x$  be 55% discount .

$0,3x$  – the first discount,

whence  $0,7x$  – the second price for merchandise after first discount,

then after second discount 25% we have  $0,25 \cdot 0,7x = 0,175x$ ,

so, the price after second discount is  $0,7x - 0,175x = 0,525x$ ,

that is not the same as 55% discount. It is  $x - 0,525x = 0,475x$ , so 47,5%

**Answer:** not the same, it is only 47,5% discount.