Answer on question 37776 – Math – Combinatorics

2009	2010
Factory A 15%	Factory A 20%
Factory B 15%	Factory B 35%

If there are currently 45 heavy lifters at Factory A and the company increase it's fleet by

60%, how many total lifters will be at factory A and Factory B after they are redistributed?

Solution

As in 2009 the Factory A had 45 lifters and it is the 15% of the total quantity therefore the total quantity was

$45 * \frac{100}{15} = 300$ lifters

In 2010 the company increase it's fleet by 60% and now it has

$300 * 1.6 = 480$ lifters.

The factories A and B have the $20\% + 35\% = 55\%$ of the total quantity of lifters and it's

$480 * 0.55 = 264$ lifters.

Answer: 264 lifters.