

## Question 56090

If the demand for biscuits rises by 10% in the 6th year, how many ovens will be replaced in that year? Please show working.... how is the answer  $100 * 1.1 / 5 = 22$

## Answer 56090

From answer  $100 * 1.1 / 5 = 22$ :

- 22 is the number of ovens to be replaced in the 6<sup>th</sup> year;
- So 100 is current number of ovens;
- Assume that one oven produces certain number of biscuits, so 10% in biscuit demand causes 10% rise in oven quantity, so 1.1 is 10% rise of oven quantity;
- $1/5$  (or 20%) is the oven share that is needed to be replaced every year.

Now there are 100 ovens, demand for biscuits rises by 10%, so quantity of ovens also rises by 10% and is equal to 110 ovens. Every year 20% of ovens must be replaced, so in the 6<sup>th</sup> year  $(110 * 20\%) = 22$  ovens must be replaced.