Answer on Question #54402 – Math – Algebra

The chance of getting a particular disease sometime during your lifetime is estimated at 1 in 25.

Smoking increases the risk of developing the disease during your lifetime by 10%.

How many people out of a group of 1000 smokers would you expect to get the disease sometime during their lifetime?

Enter your answer as a whole.

Solution

$$n = \frac{1}{25} \cdot \left(1 + \frac{10}{100}\right) 1000 = \frac{1.1 \cdot 1000}{25} = (1.1 \cdot 10) \cdot \frac{100}{25} = 11 \cdot 4 = 44.$$

Answer: 44.