Answer on Question #85453 – Math – Statistics and Probability

Question

f) The price of petrol per litre has risen by 5%, 10%, 12%, 15% and 18% in each of five year successive years. Determine the geometric mean rise.

Solution

The geometric mean is equal to the **n**th root of the product of **n** numbers.

Then in our problem the geometric mean $m_g = \sqrt[5]{1.05 * 1.1 * 1.12 * 1.15 * 1.18} =$

$= \sqrt[5]{1.7554152} = 1.119$.

So, we can say that on average for 5 years the price of petrol per litre has risen by 11.9% every year.

Answer:

The geometric mean rise is equal to 11.9%.