

Name:

Five Minute Exercise

Calculating the Excess Mortality due to an Environmental Risk

Given:

A factory emits a carcinogenic pollutant.
There are 50,000 people living in the area who are exposed.
A typical person receives a dose of 1 milligram per year.
A clinical study has been done that exposed rats to the equivalent of 1 gram.
At a dose of 1 gram, there were 10% more cases of cancer in the rats than normal.
The dose-response function is believed to be linear.
One gram is equal to 1000 milligrams.

Determine:

The likely number of cases of cancer in people due to the chemical.

Answer: