

Exercise 111

The output (as a percent of total capacity) of nuclear power plants in the United States can be modeled by the function $P(t) = 1.8576t + 68.052$, where t is time in years and $t = 0$ corresponds to the beginning of 2000. Use the model to predict the percentage output in 2015.

Solution

Plug in $t = 15$ to the given function.

$$P(15) = 1.8576(15) + 68.052 = 95.916$$

The power plants will be at almost 96% of the total capacity in 2015.