Lesson 6.1, page 325, Example 4, Economics

In 2000, Denmark had a population of 5,336,400 and a gross domestic product (GDP) of $162,300,000,000.

Answer:

\[
\frac{\text{GDP}}{\text{population}} = \frac{162,300,000,000}{5,336,400} = \frac{1.623 \times 10^{11}}{5.3364 \times 10^6} = \frac{1.623}{5.3364} \times 10^5 
\approx 0.304 \times 10^5 
= $30,400
\]

The GDP of Denmark in 2000 was about $30,400.

Lesson 6.3, page 342, Exercise 65, Social Studies Connection

For 1995 through 2000, the population \( P \) (in thousands) of the United States and the number of people \( S \) (in thousands) age 85 and over can be modeled by

\[
P = 24.34t^4 - 690t^3 + 7240t^2 - 30,700t + 306,000 \\
S = 1.08t^4 - 30.2t^3 + 315t^2 - 1330t + 5560
\]

where \( t \) is the number of years since 1990. Find a model that represents the number of people in the United States under the age of 85. How many people were under the age of 85 in 2000?

Answer: \( Y = 23.22t^4 - 659.8t^3 + 6925t^2 - 29,370t + 300,440; \) about 272,000 million people

Lesson 6.7, page 370, Exercise 59, Population

For 1890 through 2000, the American Indian, Eskimo, and Aleut population \( P \) (in thousands) can be modeled by the function

\[
P = 0.00349t^3 - 0.238t^2 + 5.07t + 242
\]

In what year did the population reach 910,000?

Answer: 1970