

Answer:

Population after three years = $P\left(1 + \frac{R}{100}\right)^3$

$$175,760 = P\left(1 + \frac{40}{1000}\right)^3$$

$$175,760 = P(1.04)^3$$

$$P = \frac{175,760}{1.124864}$$

$$=156,250$$

Thus, the population three years ago was 156,250.

Compound Interest Ex 14.4 Q14

Answer:

Production after three years = $P\Big(1+\frac{R_1}{100}\Big)^2\Big(1-\frac{R_2}{100}\Big)$

$$=8,000\left(1+\frac{15}{1,000}\right)^2\left(1-\frac{5}{100}\right)$$

$$=8,000(1.15)^2(0.95)$$

$$=10,051$$

Thus, the production after three years will be 10,051.

******* END ******