

Name: _____

Date: _____

Problem-Based Task: Population Growth

A town takes a census, or a count of its population, every 10 years. The town uses the census to estimate the population's growth rate. The town's population today is 42,000 people, and the 10-year growth rate is approximately 35%. The town's population, y , can be estimated at any year t using the equation $y = y_0 \cdot (1+r)^{\frac{t}{10}}$, where y_0 is the current population and r is the 10-year growth rate.

What will be the town's approximate population 8 years from today?

SMP

1 2

3 4

5 ✓ 6 ✓

7 ✓ 8

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