



COLLEGE OF NURSING
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Demography Worksheet 1
Measuring Changes in Population Size

Consider the crude birth rate, the crude death rate and the population of the Province of Cebu in 1985 and 1990 in the table below and answer the questions that follow:

	1985	1990
Population size	1,365,533	1,552,258
Crude Birth Rate	24.9/1000	28.1/1000
Crude Death Rate	6.6/1000	5.6/1000

Questions:*

1. Compute for Cebu's Province relative increase between 1985 and 1990.
2. What is the annual absolute change/increase of Cebu Province between 1985 and 1990?
3. Compute for the annual rate of growth in the population between 1985 and 1990 using the exponential growth assumption. How does it compare to the annual absolute change/increase?
4. Using the geometric method of estimation and assuming an annual growth rate of 2.4%, what will be Cebu's population in the midyear of 1995? Estimate Cebu's population in the midyear of 1975.
5. At an annual rate of growth of 2.4%, how many years will it take for Cebu's population to double in size? Use the geometric method of population projection.
6. How many years will it take for Cebu to reach 8 million? Use the geometric method of projection.
7. Can you compute for the natural increase in 1990?

*Make sure to show your formula, computation, final answer and interpretation.