



*carrying capacity*

# Math 1030 #15a

*logistic growth*

Real Population Growth

*growth rate*

Population Growth Rate

## Population Growth

EX 1: Find the approximate doubling time and estimate the population of the world in 2050, given that the population was 6.8 billion in 2009.

The growth rate has varied over the years.

Predict using this formula:

$$\text{new value} = \text{old value} \times 2^{t/T_{\text{double}}}$$

a) Assume the growth rate is 1.6 % as it was between 1970 and 2000.

b) Assume the growth rate is 0.7% as it is currently.

### Overall Population Growth Rate

Growth rate = birth rate - death rate

EX 2: Compare the population growth rate of the USA in 1985 and 2005.

year	1985	2005
birth rate/1000	15.7	14.1
death rate/1000	8.7	8.2