*Linear functions have constant **changes**.*
*Exponential functions have constant **percentage changes!***

1. Chi-Yun decides to open a bank account with an opening deposit of \$1000, and an annual interest rate of 6%.

   - Suppose that the account compounds annually.
     (a) How much money does the account have t years after it is opened?

     (b) How many years does it take for Chi-Yun to have her money doubled?

     (c) If Chi-Yun wants to have \$1500 after 5 years, how much money should she have deposited at the beginning?

   - Suppose that the account compounds every 4 months.
     (a) How much money does the account have t years after it is opened?

   - Suppose that the account compounds continuously.
     (a) How much money does the account have t years after it is opened?

2. The population in a certain area of the country is increasing. In 1995 the population was 100,000, and by 2015 it was 200,000. If the population has been increasing exponentially and continues to do so, what do you expect the population to be t years after 2015?