

NOTES SECTION 8.1: EXPONENTIAL GROWTH – DAY 2

EXPONENTIAL GROWTH MODELS

EXAMPLE 1

In 1980 about 2,180,000 US workers worked at home. During the next ten years, the number of workers working at home increased _____ per year.

a) Write a model giving the number w (in millions) of workers working at home t years after 1980.

b) Estimate the number of workers in _____.

YOUR TURN

In 1990 the cost of tuition at a state university was \$4300.

During the next 8 years, the tuition rose _____ each year.

a) Write a model that gives the tuition y (in dollars) t years after 1990.

b) Estimate the tuition in _____.

COMPOUND INTEREST

EXAMPLE 2

You deposit \$1500 in an account that pays _____ annual interest.

Find the balance after one year if the interest is compounded:

a) annually

b) semiannually

c) quarterly

YOUR TURN

You deposit \$2000 to an account that pays _____ annual interest. How much more does the account earn in one year if the interest is compounded monthly rather than annually?