

## Video Notes for Section 4.6, Exponential Growth only

Pages 452 – 454 only, Examples 1 and 2

(def) **Exponential Growth** – Let  $y_0$  be the \_\_\_\_\_ or number present at \_\_\_\_\_. Then, under certain conditions, the amount present at any time  $t$  is modeled by \_\_\_\_\_, where \_\_\_\_\_ is a constant.

If  $k > 0$  ( $k$  is **positive**), then we have an exponential \_\_\_\_\_ type of function.

If  $k < 0$  ( $k$  is **negative**), then we have an exponential \_\_\_\_\_ type of function.

The amount of time that it takes for a quantity that grows exponentially to become twice the \_\_\_\_\_ amount is called \_\_\_\_\_.

Ex. 1, p. 453      Look at the book and follow along... he does Parts a and b of that problem exactly.

Year	Carbon Dioxide (ppm)
1990	353
2000	373
2075	590
2175	1090
2275	2000

a.

b.

\*\*\* Be sure to look over Example 2, p. 454. There's one like that on the Chapter 4 Test.

\*\*\* Omit the rest of the video.