

PRE-AP ALGEBRA 2

1A.6 CLASSWORK

- 1) Find the exponential equation which passes through the two points (0,4.0000) and (4,8.2944).
- 2) Find the exponential equation which passes through the two points (3,70.4) and (6,4505.6).
- 3) Verify your result from problem 2 by using exponential regression.
- 4) In 2000, the population of the United States was 282.2 million people. In 2020, it was 329.5 million.
 - a) Estimate the population of the United States in the year 2060.
 - b) In the equation $p = a \cdot b^t$, what is the meaning of b ?
- 5) Half of a sample of radioactive Uranium-235 will decay in 0.7 billion years. The initial size of the sample of Uranium-235 is 100 grams.
 - a) How much of the original sample will have decayed after 2.0 billion years?
 - b) In the equation $g = a \cdot b^t$, what is the meaning of b ?

Note: let t be time in billions of years.