



Name \_\_\_\_\_  
Class block \_\_\_\_\_  
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Honors Pre-Calculus Quiz  
Sections 3.1–3.2  
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3. Suppose  $g(t)$  is an exponential function of time  $t$  measured in years, and you are given that the value of  $g(t)$  triples every two years. Write a possible formula for  $g(t)$ .

4. The grizzly bear population is modeled by the function  $P(t) = \frac{200}{1 + 9e^{(-0.1)t}}$ , where  $t$  represents elapsed time in years, for  $t \geq 0$ .

a. What is the range of the population function  $P(t)$ ?

b. Based on this model, at what time  $t$  will the bear population reach 90% of the maximum sustainable population?