

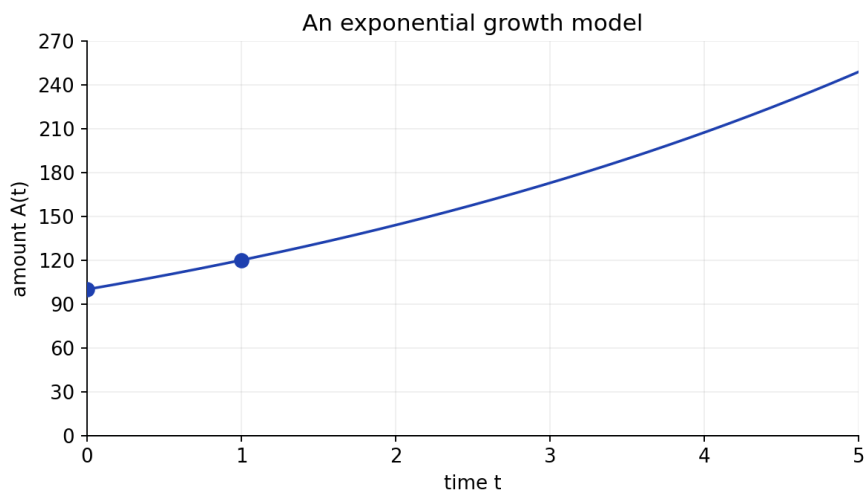
Problems | Name: _____

4.1 Exponential Models

4.1.1. Find the value of $P(t) = 500(1.04)^t$ at $t = 2$.

4.1.2. A quantity halves every 3 hours. Write its model when it starts at 120.

4.1.3. From the graph of $A(t) = 100(1.2)^t$, identify the initial value and percentage growth per time unit.



Read the initial value and compare equal time intervals.

Problems | Name: _____

4.2 Logarithm Properties

4.2.1. Condense $\log_2 x + \log_2 (x - 1)$ and state the original domain.

4.2.2. Evaluate $\log_3 (1/27)$.

4.2.3. Is $\ln(x + 2) = \ln x + \ln 2$ a valid identity for $x > 0$?

Problems | Name: _____

4.3 Solving and Domains

4.3.1. Solve $3^{2x} = 27$.

4.3.2. Solve $\log_2(x - 3) = 4$.

4.3.3. Solve $\ln x + \ln(x - 3) = \ln 4$ and reject invalid candidates.
