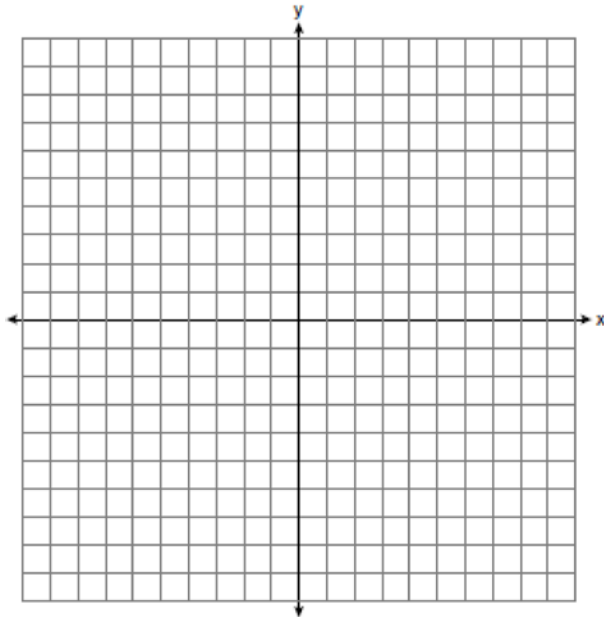
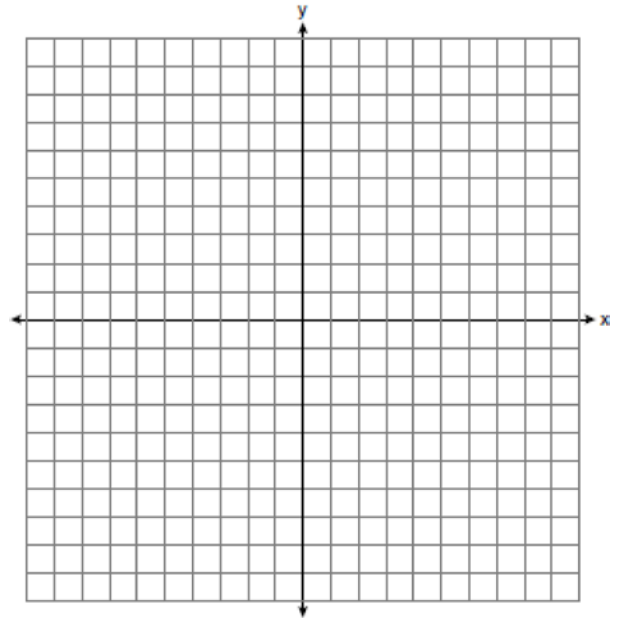


A2.A.53: Graphing Exponential Functions: Graph exponential functions of the form $y = b^x$ for positive values of b , including $b = e$

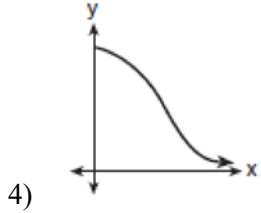
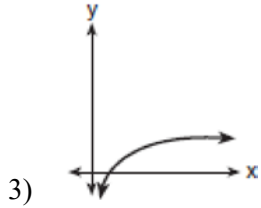
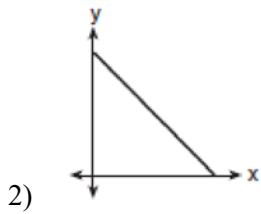
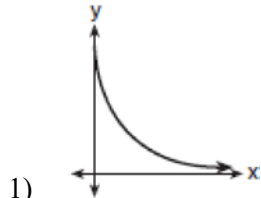
- 1 The graph of the equation $y = \left(\frac{1}{2}\right)^x$ has an asymptote. On the grid below, sketch the graph of $y = \left(\frac{1}{2}\right)^x$ and write the equation of this asymptote.



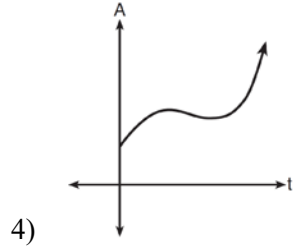
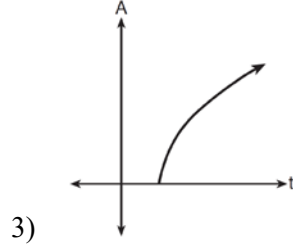
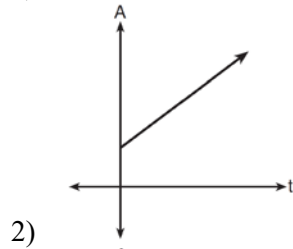
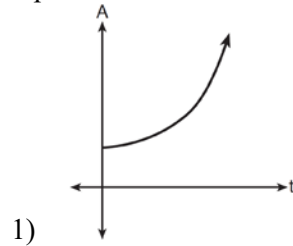
- 2 On the axes below, for $-2 \leq x \leq 2$, graph $y = 2^{x+1} - 3$.



- 3 The strength of a medication over time is represented by the equation $y = 200(1.5)^{-x}$, where x represents the number of hours since the medication was taken and y represents the number of micrograms per millimeter left in the blood. Which graph best represents this relationship?



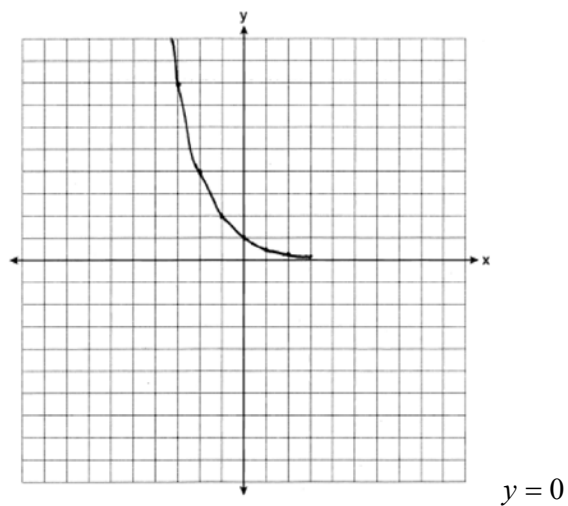
- 4 An investment is earning 5% interest compounded quarterly. The equation represents the total amount of money, A , where P is the original investment, r is the interest rate, t is the number of years, and n represents the number of times per year the money earns interest. Which graph could represent this investment over at least 50 years?



A2.A.53: Graphing Exponential Functions: Graph exponential functions of the form $y = b^x$ for positive values of b , including $b = e$

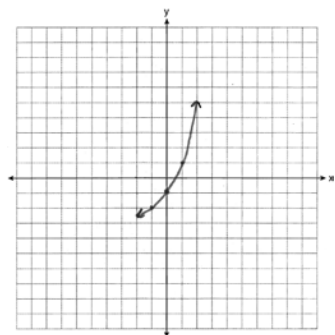
Answer Section

1 ANS:



REF: 061031a2

2 ANS:



REF: 011234a2

3 ANS: 1

REF: 080304b

4 ANS: 1

REF: 011505a2