

Exponential Growth and Decay



Overview of problems

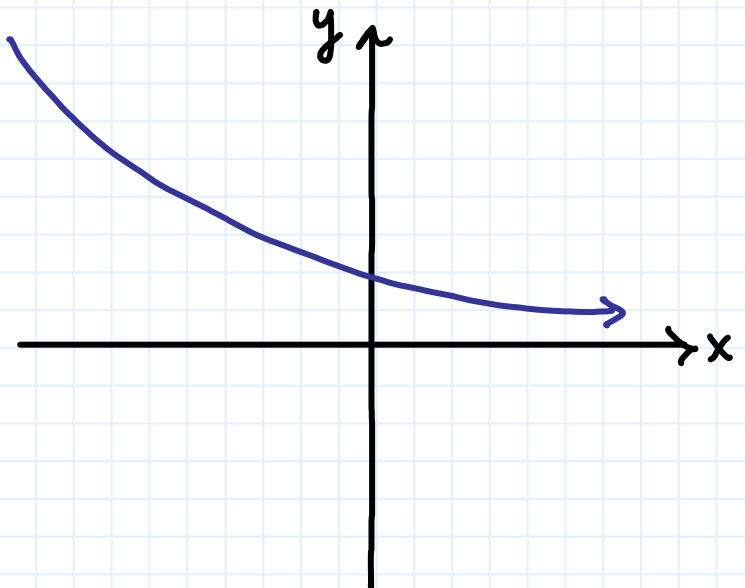
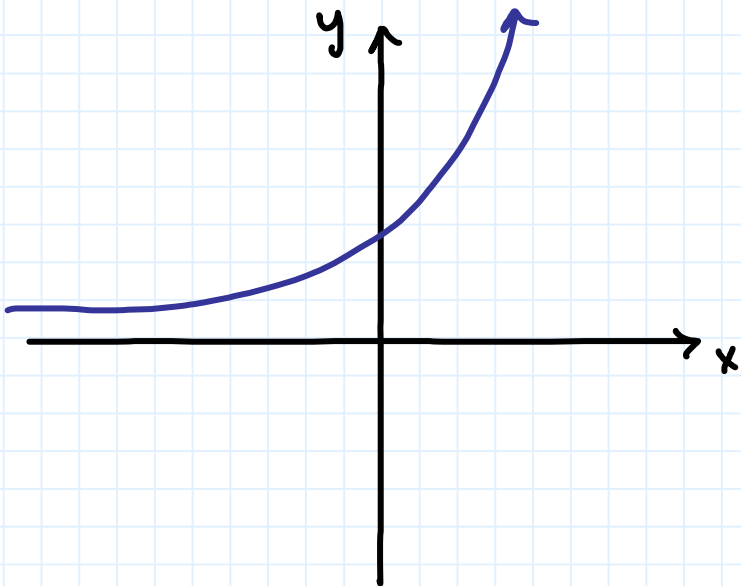


Example Set: A

Determine if the function is exponential growth or decay

$$y = \frac{1}{2}(3)^x$$

$$y = 6(.2)^x$$





Example Set: B

In 1970 deer population in New York was 120,000. The population increased by 2.3% per year through 1990. Write an exponential growth model that represents the deer population in terms of years. Estimate what the deer population was in 1985.



Example Set: C

In 2003 you bought a new car for \$30,000. The dealer said the value of the car should not decrease more than 6% a year. Estimate the value of your car in 2012.

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Overview of problems- KEY

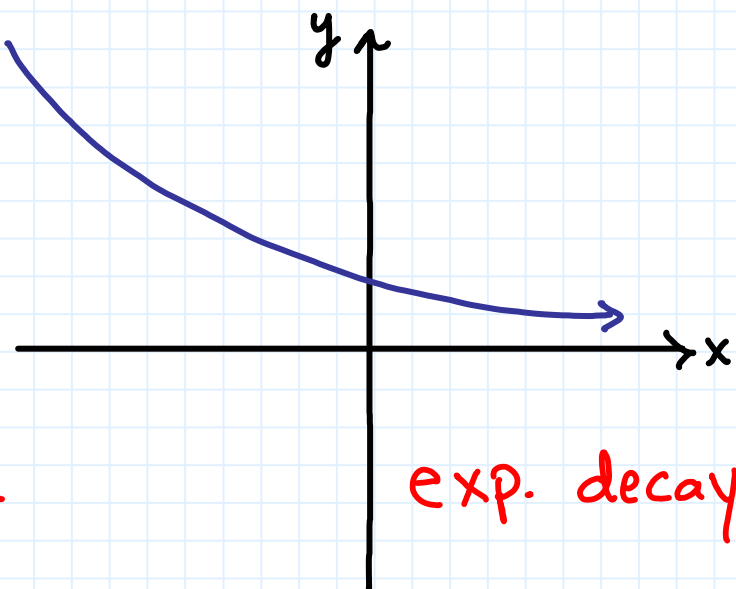
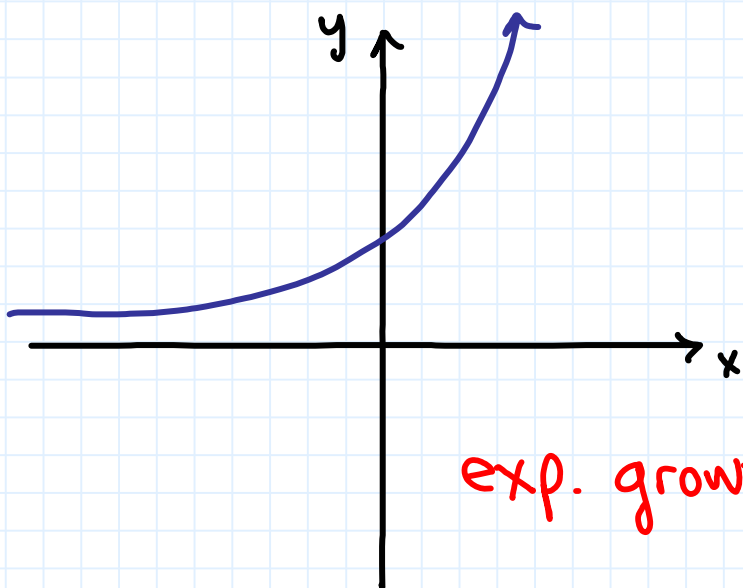


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Example Set: B

In 1970 deer population in New York was 120,000. The population increased by 2.3% per year through 1990. Write an exponential growth model that represents the deer population in terms of years. Estimate what the deer population was in 1985.

168,778 deer



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\$17,189.84