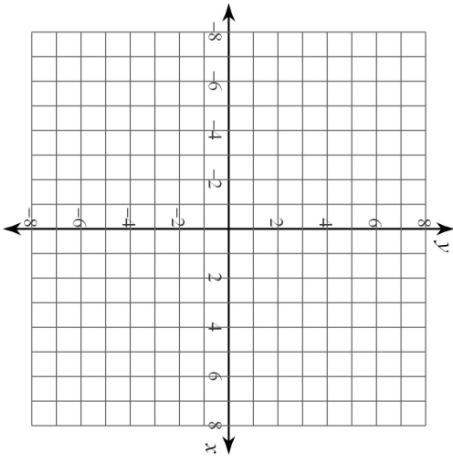


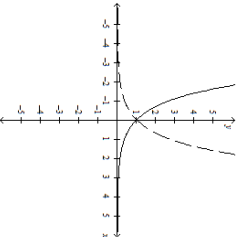
A natural base exponential function can be written as:

Exponential growth:

Exponential decay:



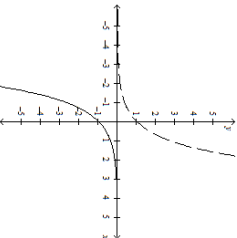
The graph shows the parent function $y = e^x$ with dashes. Which of the following matches the graph of the solid curve?



- a. $y = e^{-x}$
- b. $y = -e^{-x}$
- c. $y = -e^x$
- d. $y = e^x$

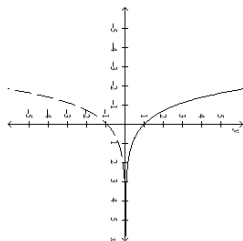


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The chart shows locations for the function, $y = ae^{rx}$. Which is the closest value of r when a is -0.27 ?

x	-2	-1	0	1
y	-0.364	-0.27	-0.2	-0.148

- a. 0.1
- b. -0.3
- c. -0.9
- d. -0.4

The chart shows locations for the function, $y = ae^{rx}$. What is the value of a to the nearest tenth when r is 1.5?

x	-1	0	1	2
y	-0.4686	-2.1	-9.4115	-42.1796

The chart shows locations for the function, $y = ae^{rx}$. Which is the closest value of a when r is -0.6 ?

x	-2	-1	0	1
y	-7.636	-4.191	-2.3	-1.262

- a. -2.2
- b. -2.7
- c. -2.3
- d. -1.8