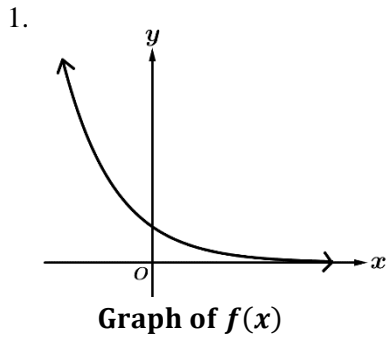
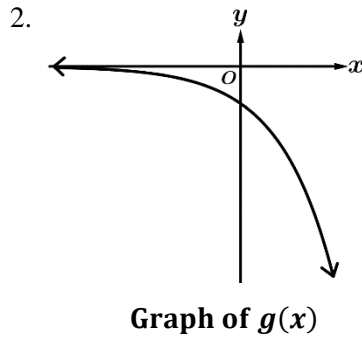


Directions: Write limit statements for the end behavior of the following exponential functions.



Left: _____

Right: _____



Left: _____

Right: _____

3. $h(x) = 2(3)^x$

Left: _____

Right: _____

4. $k(x) = 5\left(\frac{3}{8}\right)^x$

Left: _____

Right: _____

5. $m(x) = -6\left(\frac{3}{2}\right)^x$

Left: _____

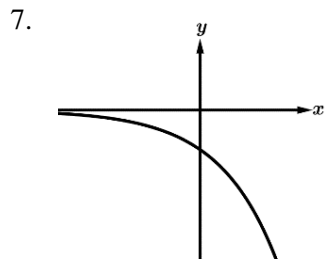
Right: _____

6. $n(x) = -7\left(\frac{\pi}{4}\right)^x$

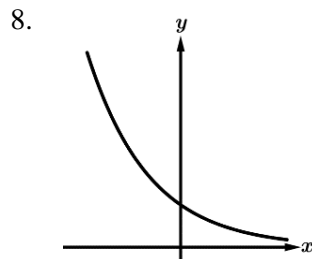
Left: _____

Right: _____

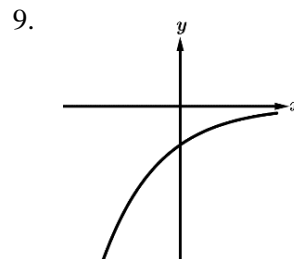
Directions: Match the graphs of the exponential functions below with the correct description of the graph.



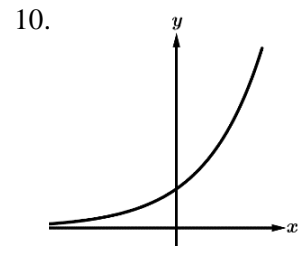
(i) The graph is increasing and concave up.



(ii) The graph is increasing and concave down.



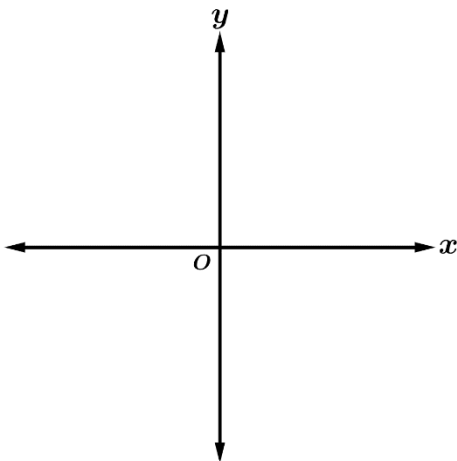
(iii) The graph is decreasing and concave up.



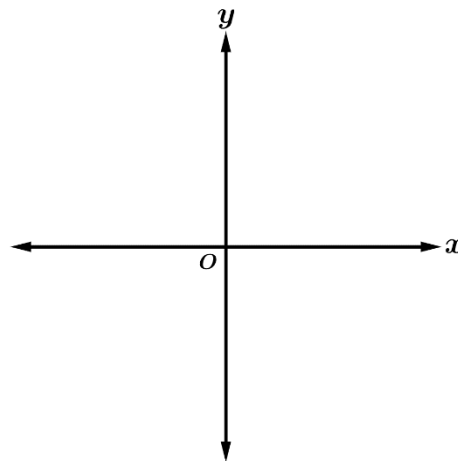
(iv) The graph is decreasing and concave down.

Directions: Sketch a graph of an exponential function with the given properties.

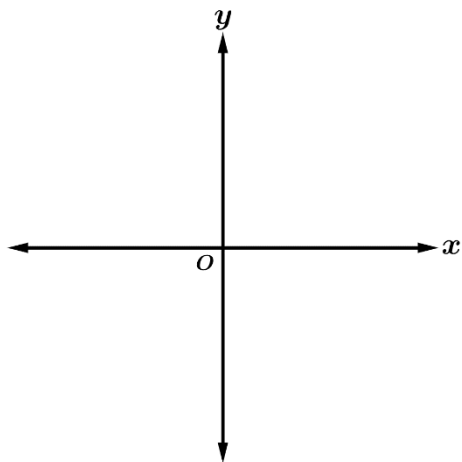
11. $\lim_{x \rightarrow \infty} f(x) = -\infty$ and $\lim_{x \rightarrow -\infty} f(x) = 0$



12. $\lim_{x \rightarrow \infty} g(x) = 0$ and $\lim_{x \rightarrow -\infty} g(x) = \infty$



13. As the input values of h decrease without bound, the output decrease without bound. And as the input values of h increase without bound, the output values get arbitrarily close to 0.



14. The initial value of the exponential function k is 5, and k demonstrates exponential decay.

