

Graphing Exponential Functions

Sketch the graph the following functions on a sheet of graph paper. Each function should have its own graph. Find and label the vertex.

1) $f(x) = 2^{x+3} - 4$

2) $f(x) = -\left(\frac{1}{2}\right)^{x-1} + 3$

3) $f(x) = 2(3)^{x+1} - 5$

4) $f(x) = 5^{-x} - 3$

5) $f(x) = 2(3)^{x+2} - 3$

6) $f(x) = -3^{x+2} - 4$

7) $f(x) = \left(\frac{1}{4}\right)^{x-5} + 2$

8) $f(x) = \left(\frac{1}{3}\right)^{x-3} - 5$

9) $f(x) = -4^{3-x} + 2$

10) $f(x) = 2\left(\frac{1}{3}\right)^{x-5} + 1$

11) $f(x) = -6^{x-3} - 1$

12) $f(x) = 2^{x-2} + 3$