

Exponential Functions

1. Approximate each number using a calculator. Round your answer to three decimal places

$$7^{3.1}$$

2. Approximate each number using a calculator. Round your answer to three decimal places

$$9^{\sqrt{3}}$$

3. Approximate each number using a calculator. Round your answer to three decimal places

$$e^{-2.5}$$

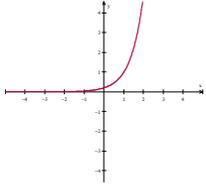
4. Graph each function

$$f(x) = 4^x$$

5. Graph each function

$$f(x) = \left(\frac{1}{4}\right)^x$$

6. The graph of an exponential function is given.
Select the function for each graph from the following options:



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

$$g(x) = 5^x$$

$$h(x) = -5^x$$

$$i(x) = -5^{x-1}$$

$$j(x) = 5^x + 1$$

$$k(x) = -5^x - 1$$

7. Describe the transformation occurring and graph each function

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

8. Describe the transformation occurring and graph each function

$$g(x) = e^{x-2}$$

9. Describe the transformation occurring and graph each function

$$g(x) = -e^{x+4} - 1$$