

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Learning Goal 7.1**

Applying one or more transformations to an exponential function, including translations, stretches and reflections.

**More Questions**

1. Draw the graph of  $y = 3 \times 2^x$ .
  - a. How does the graph of  $y = 3 \times 2^x$  compare to the graph of  $y = 2^x$ ?
  - b. What is the  $y$  – intercept of the transformed graph?
  - c. What is the asymptote of the transformed graph?
  
2. Graph the function  $f(x) = 2^x$ . On the same grid, sketch the graph of each function.
  - a.  $y = f(x) - 1$
  - b.  $y = f(x - 1)$
  - c.  $y = f(x + 1)$
  - d.  $y = f(0.5x)$
  - e.  $y = f(2x)$
  - f.  $y = f(-x)$