

GRAPHING EXPONENTIAL FUNCTIONS BY HAND TASK:

1. Sketch the graph of the function $f(x) = 2^x$ in your notes following the steps below.
 - a. Create a table of points.
 - b. Plot at least 3 points, including the y-intercept.
 - c. Draw a smooth curve through the points.
 - d. State the domain, $(-\infty, \infty)$, the range, and the horizontal asymptote.

2. Using the parent function, how would you graph the function $f(x) = 2^{x+1} - 3$?
State the domain, range, and asymptote.

3. Find and graph the equation for a function, $g(x)$, that reflects $f(x) = 1.25^x$ about the y-axis.
State its domain, range, and asymptote.

4. Write the equation for the function described below. Give the horizontal asymptote, the domain, and the range.

$f(x) = e^x$ is compressed vertically by a factor of $\frac{1}{3}$, reflected across the x-axis and then shifted down 2 units.