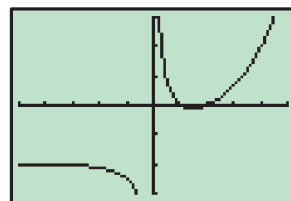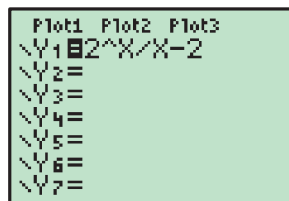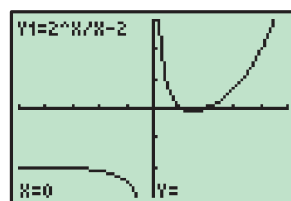# CHAPTER 5 - GRAPHING FUNCTIONS
TI-84 Plus

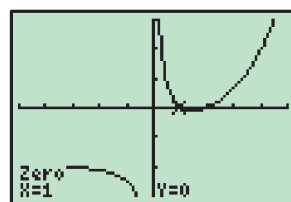Press $\boxed{\text{Y=}}$, and store $\dfrac{2^x}{x} - 2$ into **Y₁** . Press $\boxed{\text{GRAPH}}$ to draw the function.

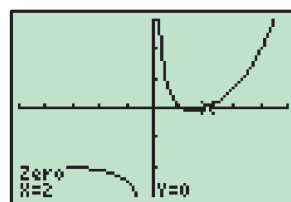To find the y-intercept, press $\boxed{\text{TRACE}}$ 0 $\boxed{\text{ENTER}}$. There is no y-intercept.

To find the x-intercepts, press $\boxed{\text{2nd}}$ $\boxed{\text{TRACE}}$ (**CALC**) **2:zero**. Place the left and right bounds either side of the first x-intercept, place the guess close to the first x-intercept, and press $\boxed{\text{ENTER}}$. The first x-intercept $x = 1$ is given.
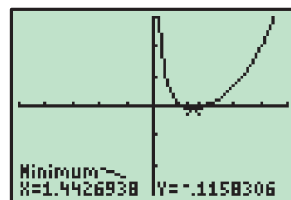

Repeat this process to find the second x-intercept $x = 2$.

So, the x-intercepts are 1 and 2.

To find the coordinates of the local minimum, press $\boxed{\text{2nd}}$ $\boxed{\text{TRACE}}$ (**CALC**) **3:minimum**. Place the left and right bounds either side of the minimum, place the guess close to the minimum, and press $\boxed{\text{ENTER}}$. The local minimum is at $(1.44, -0.116)$.

Press $\boxed{\text{TRACE}}$ -5 $\boxed{\text{ENTER}}$. We can see that as $x \to -\infty$, $y \to -2$, so $y = -2$ is a horizontal asymptote.
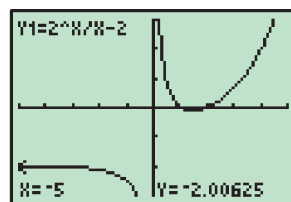
Press $\boxed{\text{TRACE}}$ 0.001 $\boxed{\text{ENTER}}$. We can see that as $x \to 0$ from the right, $y \to \infty$, so $x = 0$ is a vertical asymptote.