A three-dimensional object is created by rotating the curve $y = \frac{4}{x}$ about the line $y = 4$ from $x = 1$ to $x = 4$ as shown to the right.

1. Axis of integration: ____________

2. Find the volume of a typical slice. Use the blank space below to
   
   (a) Draw a typical slice and label its dimensions with appropriate arrows.
   
   (b) Draw the $x$-$y$ cross section, the corresponding slice and label its dimensions. Labeling must be consistent.
   
   (c) Find the volume of the typical slice in terms of the variable of integration.

Label the dimensions of the slice with appropriate arrows. Then identify the dimensions on the $x$-$y$ cross section and find the radius and volume of the slice.

$$r = \quad dV = \quad$$