A metal bushing is formed in the shape shown below. The outer curve is \( y = x^2 + 1 \). The inner bore has constant radius 0.5.

1. Draw and label the usual figures to communicate a slicing strategy for a volume integral along the \( x \)-axis. You can use the empty axes for your 2-D cross-section.

2. Write an integral for the volume. Your work must include:
   - A formula for the inner radius of your slice.
   - A formula for the outer radius of your slice.
   - A formula for the volume of your slice.
   - An integral for the total volume.