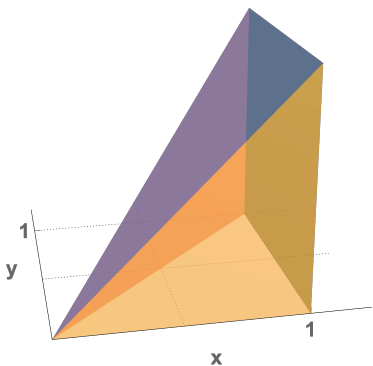


Known Cross Sections

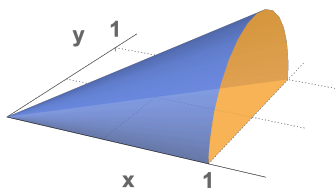
Each of the solids below has the same “base” in the xy -plane: the triangle bounded by $y = x$, $x = 1$, and the x -axis. The cross sections perpendicular to the x -axis are indicated below.

For each solid: (a) choose a value of x between 0 and 1 and sketch in a representative cross section perpendicular to the x axis. [This can be done with the Zoom annotation tools!](#) (b) Find a formula $A(x)$ for the area of that cross section. (c) Set up, but do not evaluate, an integral to find the volume of the solid.

1. Squares.



2. Half-circles.



3. Isosceles right triangles.

