Exer. 1-8: Let $R$ be the region bounded by the graphs of $x = y^2$ and $x = 9$. Find the volume of the solid that has $R$ as its base if every cross section by a plane perpendicular to the $x$-axis has the given shape.

1. A square

2. A rectangle of height 2

3. A semicircle

4. A quartercircle

5. An equilateral triangle

6. A triangle with height equal to $\frac{1}{4}$ the length of the base

7. A trapezoid with lower base in the $xy$-plane, upper base equal to $\frac{1}{2}$ the length of the lower base, and height equal to $\frac{1}{4}$ the length of the lower base.