Volume - Worksheet

- 1. Find the volume, where the base is the region bounded by y=x and $y=\sqrt{x}$, and whose cross-sections perpendicular to the y-axis are squares.
- 6. Find the volume of the solid whose base is the region bounded by $y = e^{-x}$, y = 0.5 and x = 0, and cross-sections perpendicular to the y-axis are circles.
- 2. Find the volume, where the base is the region bounded by y = x and $y = \sqrt{x}$, and whose cross-sections perpendicular to the y-axis are semi-circles.
- 7. Find the volume of the solid whose base is the region bounded by $y = e^{-x}$, y = 0.5 and x = 0, and cross-sections perpendicular to the y-axis are squares.
- 3. Find the volume of the solid whose base is the region bounded by y=x and $y=\sqrt{x}$, and cross-sections perpendicular to the y-axis are equilateral triangles.
- 8. Write an integral expression for the volume of a hemisphere with radius a.

- 4. Write an integral expression for the volume of a pyramid with height 9 and square base with side 4.
- 9. Find the volume of the solid whose base is the region bounded by $y = e^{-x}$, y = 0.5 and x = 0, and cross-sections perpendicular to the y-axis are equilateral triangles.
- 5. Write an integral expression for the volume of a sphere with radius 5.
- 10. Write an integral expression for the volume of a pyramid with height 10 and circular base with radius a.

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