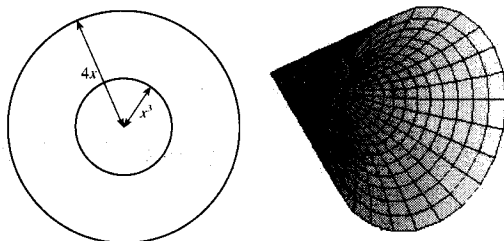


HW 14

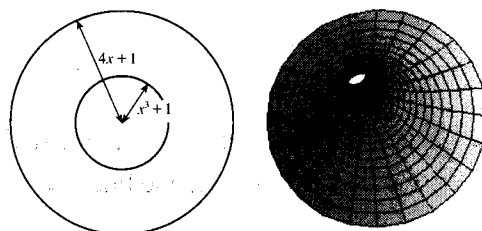
Solutions

Answers:

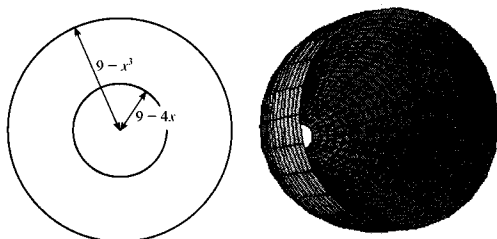
$$1. \int_0^2 [\pi (4x)^2 - \pi (x^3)^2] dx = \frac{512}{21}\pi \approx 76.595$$



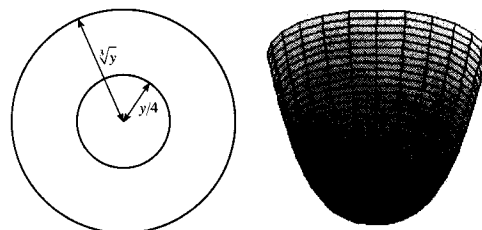
$$2. \int_0^2 [\pi (4x+1)^2 - \pi (x^3+1)^2] dx = \frac{680}{21}\pi \approx 101.728$$



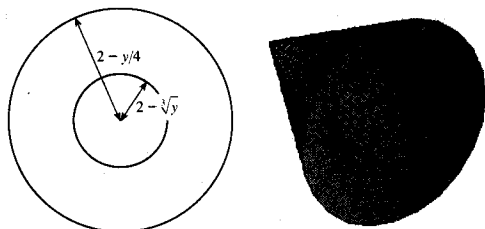
$$3. \int_0^2 [\pi (9-x^3)^2 - \pi (9-4x)^2] dx = \frac{1000}{21}\pi \approx 149.600$$



$$4. \int_0^8 [\pi (\sqrt[3]{y})^2 - \pi (\frac{y}{4})^2] dy = \frac{128}{15}\pi \approx 26.808$$



$$5. \int_0^8 [\pi (2-\frac{y}{4})^2 - \pi (2-\sqrt[3]{y})^2] dy = \frac{112}{15}\pi \approx 23.457$$



$$6. \int_0^8 [\pi (\sqrt[3]{y}+1)^2 - \pi (\frac{y}{4}+1)^2] dy = \frac{248}{15}\pi \approx 51.941$$

