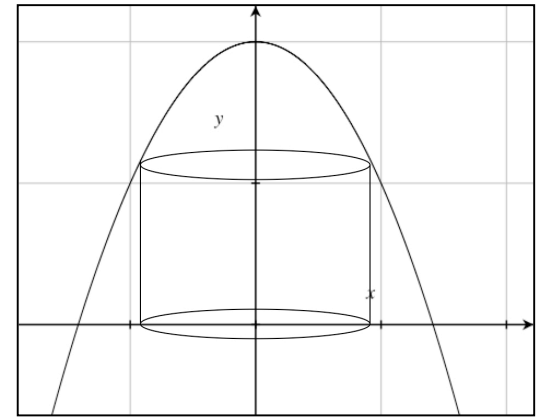


Deriv. Apps – 600

- The graph of $y = a - x^2$, a is a constant, is rotated about the y -axis to form a paraboloid. A cylinder is inscribed in the resulting paraboloid with its base along the x -axis and its top touching the paraboloid. The maximum volume of this cylinder



A) $\sqrt{\frac{a}{2}}$

B) $\pi(a^2 - a^{3/2})$

C) πa

D) $\frac{\pi a^2}{4}$