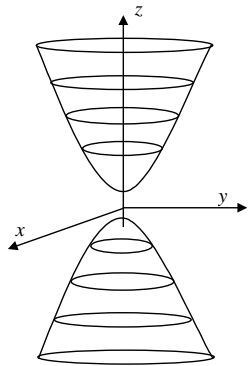


A. $z^2 - a^2 = x^2 + y^2$

$$z^2 - r^2 = a^2$$

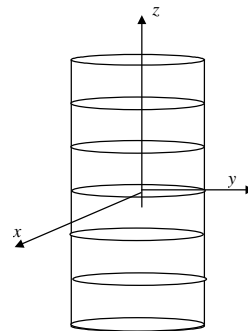
$$\rho^2 = \frac{a^2}{\cos^2 \phi - \sin^2 \phi}$$



B. $x^2 + y^2 = a^2$

$$r = a$$

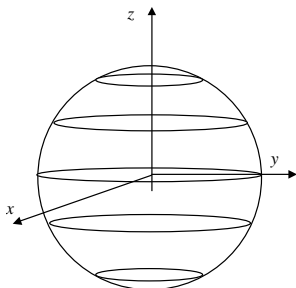
$$\rho = a \csc \phi$$



C. $x^2 + y^2 + z^2 = a^2$

$$z^2 + r^2 = a^2$$

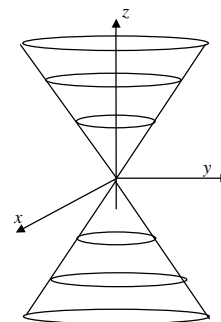
$$\rho = a$$



D. $z^2 = x^2 + y^2$

$$z^2 = r^2$$

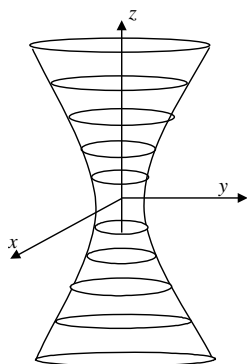
$$\tan^2 \phi = 1$$



E. $z^2 + a^2 = x^2 + y^2$

$$z^2 = r^2 - a^2$$

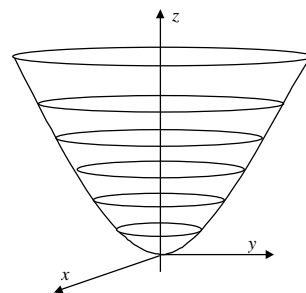
$$\rho^2 = \frac{a^2}{\sin^2 \phi - \cos^2 \phi}$$



F. $z = x^2 + y^2$

$$z = r^2$$

$$\rho = \cot \phi \csc \phi$$



G. $z = \sqrt{x^2 + y^2}$

$$z = r$$

$$\tan \phi = 1$$

