

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{z^2}{c^2} = 1$$

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} - \frac{0^2}{c^2} = 1$$

$$\frac{x^2}{100^2} + \frac{y^2}{100^2} = 1$$

$$\frac{x^2}{100^2} + \frac{y^2}{100^2} = 1 + \frac{(-500)^2}{c^2}$$

$$x^2 + y^2 = \left( 100^2 \left( 1 + \frac{(-500)^2}{c^2} \right) \right) = 17600$$

$$c^2 = 260417$$

$\Sigma'_{14.1}$ 

$$x = \cos(4t), \quad y = t, \quad z = \sin(4t)$$

$$\#14 \quad x = \cos t, \quad y = -\cos t, \quad z = \sin t$$

$$\vec{r}(t) = \cos t \vec{i} - \cos t \vec{j} + \sin t \vec{k}$$

$$= \langle \underline{\cos t}, -\cos t, \underline{\sin t} \rangle$$

Cylinders are handy!

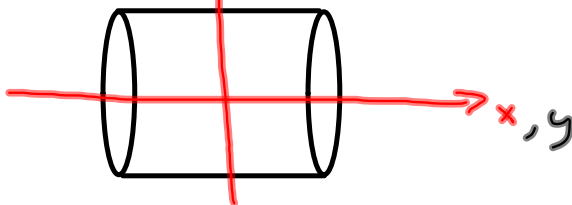
$$x^2 + z^2 = 1$$

$$y^2 + z^2 = 1$$

Cylinder,  $r = 1$

Cylinder,  $r = 1$

Curve is contained  
in Both cylinders.



Lug Wrench

