

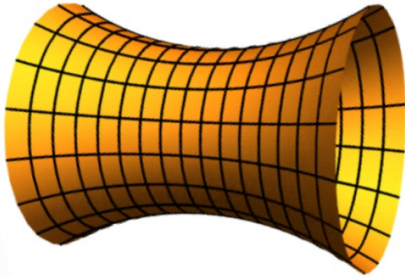
Surface of Revolution



$$\vec{\alpha}(u) = u\hat{x} + h(u)\hat{y}$$

catenary ($h(u) = \cosh u$)

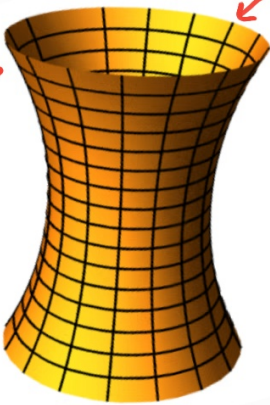
catenoid



$$\vec{\alpha}(u,v) = u\hat{x} + h(u)(\cos v\hat{y} + \sin v\hat{z})$$

parallel ($z = \text{const}$)

meridian ($\theta = \text{const}$)



$$\vec{\alpha}(z) = r(z)\hat{x} + z\hat{z}$$

$$\vec{\alpha}(\theta, z) = r(z)\hat{r} + z\hat{z}$$

$\hat{r}(\theta)$