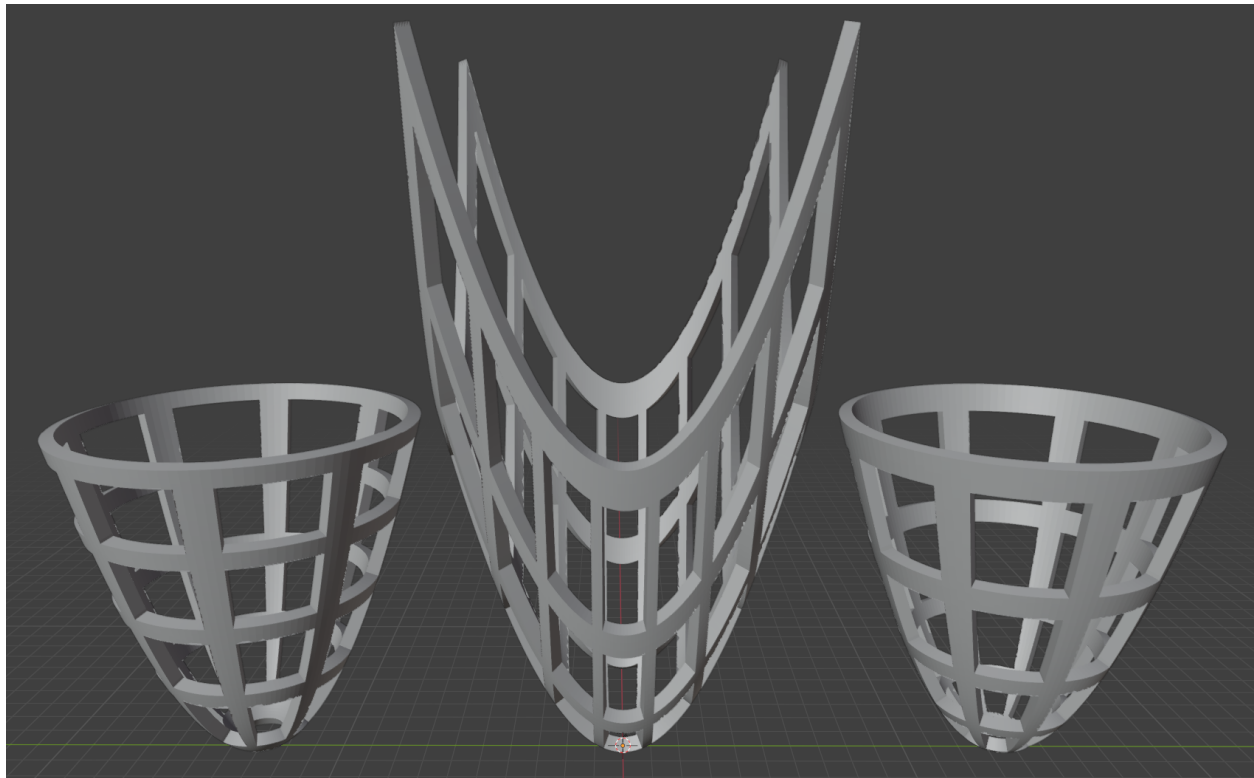


Consider the three different 3D models for the paraboloid defined by $z = x^2 + y^2$.



The three different models are made from the three parametrizations

$$\begin{aligned}\mathbf{r}_1(r, \theta) &= \langle r \cos(\theta), r \sin(\theta), r^2 \rangle \\ \mathbf{r}_2(\theta, t) &= \langle \sqrt{t} \cos(\theta), \sqrt{t} \sin(\theta), t \rangle \\ \mathbf{r}_3(u, v) &= \langle u, v, u^2 + v^2 \rangle\end{aligned}$$

and also exhibit the grid lines for each parametrization.

Match the 3D models to the parametrizations used to create them.