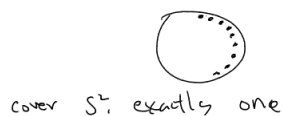
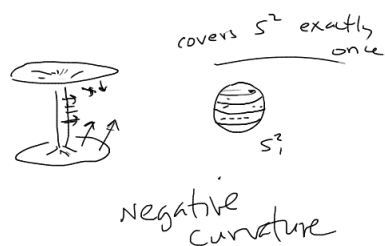
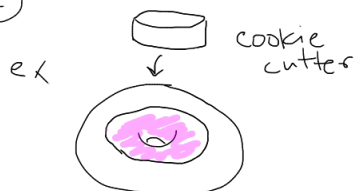
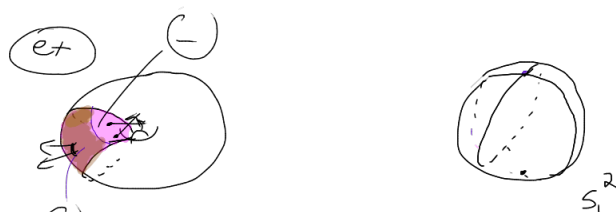


Topology $\frac{1}{2}$ the degree of the spherical map

$$K(\Sigma) = \iint_{\Sigma} K dA$$



$$\Rightarrow \text{Total Curvature} = 0$$



cookie cutter 3 times



outer region.
+ 4π



each covers S_1^2 exactly once (

-4π , -4π , -4π

Total Curvature:

$$\boxed{-8\pi}$$

gen = 3

then

$$\begin{aligned} K(\Sigma_3) &= 2\pi \chi(\Sigma_3) \\ &= 2\pi(2 - 2g) \\ &= 4\pi - 4\pi(3) \\ &= -8\pi \end{aligned}$$