Building Cell Complex:

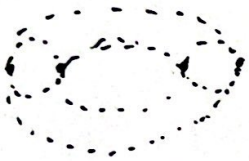
0-skeleton	X^0	points
1-skeleton	X^1	lines
2-skeleton	X^2	disks D^2

attaching maps of D^n $\varphi: S^{n-1} \to X^{n-1}$

Example: Building a Torus (Euler Characteristic!)

$D^0 - 2D^1 + D^2$

$\chi(T) = 0$

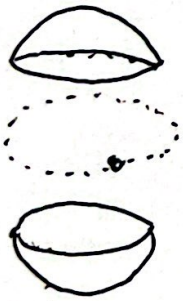


$4D^0 - 8D^1 + 4D^2$

Example: Building a 2-sphere

$D^0 + D^2$

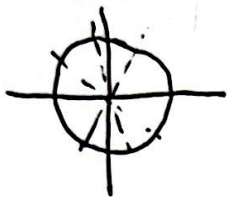
$\chi(S^2) = 2$

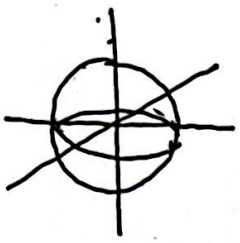
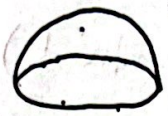


$D^0 - D^1 + 2D^2$

Example: Building $\mathbb{RP}^n$

$\mathbb{RP}^0$: • D^0

$\mathbb{RP}^1$:  S^1 ↓ adding D^1

$\mathbb{RP}^2$:   ↓ adding D^2.