

$${}_0\mathbb{K}_{\mathbb{P}}^3 = {}_1\mathcal{H}_3\mathbb{K} \text{ points}$$

$${}_1\mathbb{K}_{\mathbb{P}}^3 = {}_2\mathcal{H}_3\mathbb{K} \text{ lines}$$

$$\mathbb{K}_{\mathbb{P}}^2 = \mathbb{S}^a = \mathbb{K} \cup \infty$$

$$\mathbb{R}_{\mathbb{P}}^2 = \mathbb{S}^1 = \mathbb{R} \cup \infty$$

$$\mathbb{C}_{\mathbb{P}}^2 = \mathbb{S}^2 = \mathbb{C} \cup \infty$$

$$\mathbb{H}_{\mathbb{P}}^2 = \mathbb{S}^4 = \mathbb{H} \cup \infty$$

$$\mathbb{O}_{\mathbb{P}}^2 = \mathbb{S}^8 = \mathbb{O} \cup \infty$$