

The poster introduces  $n$ -dimensional real projective spaces, denoted as  $\mathbb{R}P^n$ . The space  $\mathbb{R}P^1$  is used as an example to give intuition into real projective spaces in general. We further this intuition by providing homeomorphisms between  $\mathbb{R}P^1$  and other common spaces. The fundamental groups of  $\mathbb{R}P^1$  and  $\mathbb{R}P^2$  are also described. We also show the attaching of  $e^{n+1}$  cells, which can be used to create an  $\mathbb{R}P^{n+1}$  space from  $\mathbb{R}P^n$ . The embedding  $\mathbb{R}P^1 \subset \mathbb{R}P^2 \subset \dots \subset \mathbb{R}P^n \subset \mathbb{R}P^{n+1} \subset \dots$  is also examined. This shows the CW-complex structure of  $\mathbb{R}P^n$ .