

## Homework

1. Show that  $R^n$  and  $P^{n-1}$  over the same field  $R$  (the field of real numbers) are isomorphic.
2. Show that each finite-dimensional linear space  $X$  over field  $K$  is isomorphic to  $K^n$ ,  $n = \dim X$ . Show that this isomorphism is not unique.