



# Identity Matrices

## 1 Why

## 2 Definition

The identity function is linear. Thus it corresponds to a matrix. For a  $d$ -dimensional space, the identity matrix is the matrix corresponding to the linear identity function. We can show that this matrix has ones on the diagonal and zeros on the off diagonal.

### 2.1 Notation

We denote the identity matrix by  $I$ .



Iden



