Math Document Template

C ANISH

Abstract—This is a document explaining a question about the concept of matrix.

Download all python codes from

svn co https://github.com/chakki1234/summer
−2020/trunk/linearalg/codes

and latex-tikz codes from

svn co https://github.com/chakki1234/summer
−2020/trunk/linearalg/figs

1 Problem

If a matrix has 24 elements, what are the possible orders it can have ? What, if it has 13 elements.

2 Solution

The total number of elements in a matrix is *m x n*.

1) If the total number of elements is 24. The possible orders are:

$$1x24 = 24 \tag{2.0.1}$$
$$24x1 = 24 \tag{2.0.2}$$
$$2x12 = 24 \tag{2.0.3}$$
$$12x2 = 24 \tag{2.0.4}$$
$$3x8 = 24 \tag{2.0.5}$$
$$8x3 = 24 \tag{2.0.6}$$
$$4x6 = 24 \tag{2.0.7}$$
$$6x4 = 24 \tag{2.0.8}$$

2) If the total number of elements is 13. The possible orders are:

$$1x13 = 13 \tag{2.0.9}$$
$$13x1 = 13 \tag{2.0.10}$$