

Q2) A matrix has 16 elements, what are the possible orders it can have? What if it has 11 elements.

Solution) We know, A matrix of order  $m \times n$  has  $mn$  elements where  $m, n$  are natural numbers.

$$\text{Given } m \times n = 16$$

possible orders

$$(m, n) = \{ (1, 16), (2, 8), (4, 4), (8, 2), (16, 1) \}$$

If it has ~~11~~ 11 elements

then,

$$\text{Possible orders are } \{ (1, 11), (11, 1) \}$$