# Insert Matrix

## Qian Liu

## October 4, 2021

## Contents

1	Insert Ma	atrix
	1.0.1	No delimiter
	1.0.2	delimiter is parenthesis:()
	1.0.3	delimiter is square bracket:()
	1.0.4	delimiter is curly bracket
	1.0.5	delimiter is single vertical line
	1.0.6	delimiter is double vertical lines
	1.0.7	Ellipsis: \dots \vdots \ddots
		Partitioned Matrix

#### 1 Insert Matrix

Notice that: the matrix must be located in  $\$ 

1.0.1 No delimiter

$$\begin{array}{ccc}
1 & 3 \\
2 & 4
\end{array}$$

1.0.2 delimiter is parenthesis:()

$$\begin{pmatrix} 1 & 3 \\ 2 & 4 \end{pmatrix}$$

1.0.3 delimiter is square bracket:()

$$\begin{bmatrix} 1 & 3 \\ 2 & 4 \end{bmatrix}$$

1.0.4 delimiter is curly bracket

$$\begin{cases}
 1 & 3 \\
 2 & 4
 \end{cases}$$

1.0.5 delimiter is single vertical line

$$\begin{vmatrix} 1 & 3 \\ 2 & 4 \end{vmatrix}$$

1.0.6 delimiter is double vertical lines

$$\begin{vmatrix}
1 & 3 \\
2 & 4
\end{vmatrix}$$

1.0.7 Ellipsis: \dots \vdots \ddots

$$\begin{bmatrix} 1 & \dots & 3 \\ 4 & \ddots & \vdots \\ 7 & 8 & 9 \end{bmatrix}_{3\times3} \begin{bmatrix} 1 & \dots & 3 \\ \dots & \dots & \dots \\ 7 & 8 & 9 \end{bmatrix}$$

#### 1.0.8 Partitioned Matrix

$$\begin{bmatrix} 1 & 2 & 0 \\ 3 & 4 & 0 \\ 0 & 1 & 2 \\ 0 & 3 & 4 \end{bmatrix}_{4\times4}$$

$$\begin{bmatrix} 1 & 2 & 3 & 4 \\ 5 & 6 & 7 & 8 \\ 9 & 10 & 11 & 12 \end{bmatrix}$$