

```
>
[ 實習9.1
```

```
>
[ (1)
```

```
> with(linalg) :
```

```
> A := matrix(2, 2, [1, -2, 3, -4])
```

$$A := \begin{bmatrix} 1 & -2 \\ 3 & -4 \end{bmatrix} \quad (1)$$

```
> B := matrix(2, 2, [0, 5, 3, -2])
```

$$B := \begin{bmatrix} 0 & 5 \\ 3 & -2 \end{bmatrix} \quad (2)$$

```
> evalm(A + B)
```

$$\begin{bmatrix} 1 & 3 \\ 6 & -6 \end{bmatrix} \quad (3)$$

```
> restart
```

```
[ (2)
```

```
> with(linalg) :
```

```
> A := matrix(2, 3, [3, 4, 2, -2, 3, -4])
```

$$A := \begin{bmatrix} 3 & 4 & 2 \\ -2 & 3 & -4 \end{bmatrix} \quad (4)$$

```
> B := matrix(2, 3, [0, 1, 1, 1, 3, -2])
```

$$B := \begin{bmatrix} 0 & 1 & 1 \\ 1 & 3 & -2 \end{bmatrix} \quad (5)$$

```
> evalm(A - B)
```

$$\begin{bmatrix} 3 & 3 & 1 \\ -3 & 0 & -2 \end{bmatrix} \quad (6)$$

```
> restart
```

```
[ (3)
```

```
> with(linalg) :
```

```
> A := matrix(2, 2, [2, -2, 3, 4])
```

$$A := \begin{bmatrix} 2 & -2 \\ 3 & 4 \end{bmatrix} \quad (7)$$

```
> B := matrix(2, 2, [-3, 1, 2, 2])
```

$$B := \begin{bmatrix} -3 & 1 \\ 2 & 2 \end{bmatrix} \quad (8)$$

```
> evalm(A • B)
```

$$\begin{bmatrix} -10 & -2 \\ -1 & 11 \end{bmatrix} \quad (9)$$

```
> restart
```

```
[ (4)
```

```
> with(linalg) :  
> A := matrix(2, 1, [1, -2])
```

$$A := \begin{bmatrix} 1 \\ -2 \end{bmatrix} \tag{10}$$

```
> B := matrix(1, 2, [-3, 4])
```

$$B := \begin{bmatrix} -3 & 4 \end{bmatrix} \tag{11}$$

```
> evalm(A • B)
```

$$\begin{bmatrix} -3 & 4 \\ 6 & -8 \end{bmatrix} \tag{12}$$

```
> restart
```

```
(5)
```

```
> with(linalg) :  
> A := matrix(1, 2, [3, 2])
```

$$A := \begin{bmatrix} 3 & 2 \end{bmatrix} \tag{13}$$

```
> B := matrix(2, 2, [2, 6, -1, -3])
```

$$B := \begin{bmatrix} 2 & 6 \\ -1 & -3 \end{bmatrix} \tag{14}$$

```
> evalm(A • B)
```

$$\begin{bmatrix} 4 & 12 \end{bmatrix} \tag{15}$$

```
>
```