

```
Unprotect [NonCommutativeMultiply]; Attributes [NonCommutativeMultiply] = {};
```

```
(NCM = NonCommutativeMultiply) [ $x_$ ] :=  $x$ ;
```

```
NCM [ $x_$ ,  $y_$ ,  $z_$ ] := ( $x \otimes y$ )  $\otimes$   $z$ ;
```

```
 $0 \otimes \_ = \_ \otimes 0 = 0$ ;
```

```
( $x\_Plus$ )  $\otimes y_$  := ( $\# \otimes y$ ) & /@  $x$ ;  $x_ \otimes (y\_Plus)$  := ( $x \otimes \#$ ) & /@  $y$ ;
```

```
B [ $x_$ ,  $x_$ ] = 0; B [ $x_$ ,  $y_$ ] :=  $x \otimes y - y \otimes x$ ;
```

```
B [ $x_$ ,  $y_$ ,  $e_$ ] := B [ $x$ ,  $y$ ,  $e$ ] = B [ $x$ ,  $y$ ];
```