

## Anticommutator example

Show that

$$\{\Sigma_i, \Sigma_j\} = 2\delta_{ij}$$

where

$$\Sigma_i = \begin{pmatrix} \sigma_i & 0 \\ 0 & \sigma_i \end{pmatrix}$$

and  $\sigma_i$  are the Pauli spin matrices.

Notes on the Eigenmath script:

1. The  $\Sigma_i$  matrices are formed using the **kronecker** function.
2. Index  $k$  is used instead of  $i$  to avoid overriding imaginary unit  $i$ .
3. The expression  $\mathbf{j} == \mathbf{k}$  is equivalent to  $\delta_{jk}$ .

Eigenmath script