

S 102 Nr. 16)

$$\begin{pmatrix} 4i-2 & -4 & -10-6i \\ 2i+4 & -6-8i & 6i \\ -6 & -4+7i & -8-7i \end{pmatrix} + \begin{pmatrix} -i+2 & 5 & 2-3i \\ -2i-1 & +4i & -i-2 \\ 4+i & 2 & 2-3i \end{pmatrix}$$

$-i \cdot 2i = -2i^2 = -2 \cdot (-1) = 2$

$$\begin{pmatrix} 3i & 1 & -8-9i \\ 3 & -6-4i & 5i-2 \\ -2+i & -2+2i & -6-5i \end{pmatrix}$$

S 105 Nr. 1a)

$$\begin{pmatrix} 3 & 1 & 5 & 2 \\ 2 & 3 & 0 & 1 \\ 1 & 2 & 1 & 0 \end{pmatrix} \rightarrow \begin{pmatrix} 2 & 1 \\ 1 & 0 \\ 1 & 1 \\ 3 & 3 \end{pmatrix} = \begin{pmatrix} 18 & 14 \\ 10 & 5 \\ 5 & 2 \end{pmatrix}$$

$$\begin{pmatrix} 18 & 14 \\ 10 & 5 \\ 5 & 2 \end{pmatrix} \rightarrow \begin{pmatrix} 1 & 0 & 1 \\ 2 & 2 & 2 \end{pmatrix} \left. \begin{array}{l} 5 \\ -26 & 2 \\ -2 & 14 \\ 34 & 2 \end{array} \right\}$$
$$\begin{pmatrix} 46 & 28 & 46 \\ 20 & 10 & 20 \\ 9 & 4 & 9 \end{pmatrix}$$