Matrisoperationer transponat

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1. Find $A^T + B$.

$$A = \begin{bmatrix} 2 & -1 & 3 \\ 4 & -1 & 2 \end{bmatrix}, \quad B = \begin{bmatrix} 1 & 2 \\ 1 & -2 \\ 0 & 4 \end{bmatrix}$$

2. Compute $(2C)^T$.

$$C = \begin{bmatrix} 3 & -2 & 1 \\ 0 & 4 & -3 \\ 1 & -3 & -3 \end{bmatrix}$$

3. Determine $(DE)^T$.

$$D = \begin{bmatrix} 2 & 1 & 0 \\ 1 & -1 & 3 \\ 2 & 0 & -2 \end{bmatrix}, \quad E = \begin{bmatrix} 1 & 0 & 2 \\ 2 & 3 & -1 \\ 2 & -2 & 1 \end{bmatrix}$$

4. Calculate $(Fv)^T$.

$$F = \begin{bmatrix} 3 & 1 & 2 \\ 0 & -2 & 1 \\ 1 & -4 & -1 \end{bmatrix}, \quad v = \begin{bmatrix} 2 \\ -1 \\ 3 \end{bmatrix}$$

5. Compute $((G+H)I)^T$.

$$G = \begin{bmatrix} 2 & -1 & 1 \\ 3 & 4 & -1 \\ -1 & 0 & 3 \end{bmatrix}, \quad H = \begin{bmatrix} -2 & 1 & 0 \\ -1 & -2 & 1 \\ 0 & -2 & 1 \end{bmatrix}, \quad I = \begin{bmatrix} 1 & -3 & 2 \\ 2 & 0 & 0 \\ 0 & 1 & 4 \end{bmatrix}$$

6. Calculate MN.

$$M = \begin{bmatrix} 2 & -1 \\ 3 & 4 \\ -2 & 3 \end{bmatrix}, \quad N = \begin{bmatrix} -2 & 3 & 0 & 1 \\ 1 & 0 & -2 & 3 \end{bmatrix}$$

7. Compute PQ.

$$P = \begin{bmatrix} 1 & -3 \\ 2 & -2 \\ -1 & 4 \\ 3 & 1 \end{bmatrix}, \quad Q = \begin{bmatrix} 0 & -2 & 1 & 5 \\ -3 & 2 & 4 & -1 \end{bmatrix}$$

8. Determine RS.

$$R = \begin{bmatrix} 2 & -1 & 4 & 0 \\ 3 & 4 & 1 & 2 \\ -2 & 3 & 0 & -1 \end{bmatrix}, \quad S = \begin{bmatrix} -2 & 3 \\ 1 & 0 \\ 3 & -1 \\ 0 & 2 \end{bmatrix}$$