Source task and conventions

For square A, prove that $A + A^{\mathsf{T}}$ is symmetric using the two preceding identities.

Conventional solution and proof

By linearity and involution,

$$(A + A^{\mathsf{T}})^{\mathsf{T}} = A^{\mathsf{T}} + (A^{\mathsf{T}})^{\mathsf{T}} = A^{\mathsf{T}} + A = A + A^{\mathsf{T}}.$$