If $A = \begin{bmatrix} 3 & x \\ y & 0 \end{bmatrix}$ and $A = A^T$, then which of the following is correct

Solution :

Given : $A = \begin{bmatrix} 3 & x \\ y & 0 \end{bmatrix}$ and $A = A^T$

It is symmetric

$\therefore x = y$

A $x = 0, y = 3$

B $x + y = 3$

C $x = y$

D $x = -y$