

Answer on Question #80316 – Math – Linear Algebra

Question

if the matrix $\begin{bmatrix} 0 & 6-5x \\ x^2 & x+3 \end{bmatrix}$ is symmetric, find the value of x .

Solution

If the matrix $\begin{pmatrix} 0 & 6-5x \\ x^2 & x+3 \end{pmatrix}$ is symmetric, then $6-5x = x^2 \Leftrightarrow x^2 + 5x - 6 = 0 \Leftrightarrow x = 1$ or $x = -6$.

Answer: $x = 1$ or $x = -6$.