Problem 3 (due Monday, October 11)

A student in a linear algebra class looks at her homework problem. It says: Prove that the product \$BA\$ is the same for any \$3\times 2\$ matrix \$A\$ and \$2\times 3\$ matrix \$B\$ such that

 $[AB=\begin{bmatrix} 3 \& -1 \& 0 \ & -1 \& 0 \ -1 \& 1 \& \ end{bmatrix}]$

Unfortunately, the entry in the lower right corner of \$AB\$ is missing. Find the missing entry and solve the homework problem.

The problem was solved by Ashton Keith, Maxwell T Meyers, and Pluto Wang. Our solution provides a good illustration how to use some basic tools from linear algebra. The submitted solutions are more ad hoc. For details see the following link Solution.

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