


## Vector operations assessment

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Graded Assignment • 15 min

 **Due** Aug 24, 11:59 PM CDT

# Your grade: 100%

Your latest: **100%** • Your highest: **100%**

To pass you need at least 80%. We keep your highest score.

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1. In this assessment, you will be tested on all of the different topics you have in covered this module. Good luck!

1 / 1 point

A ship travels with velocity given by  $\begin{bmatrix} 1 \\ 2 \end{bmatrix}$ , with current flowing in the direction given by  $\begin{bmatrix} 1 \\ 1 \end{bmatrix}$  with respect to some co-ordinate axes.

What is the velocity of the ship in the direction of the current?

- ☐  $\begin{bmatrix} 3/2 \\ 2/3 \end{bmatrix}$
- ☐  $\begin{bmatrix} 2/3 \\ 3/2 \end{bmatrix}$
- ☐  $\begin{bmatrix} 2/3 \\ 2/3 \end{bmatrix}$
- ☒  $\begin{bmatrix} 3/2 \\ 3/2 \end{bmatrix}$

 **Correct**

This is the vector projection of the velocity of the ship onto the velocity of the current.

2. A ball travels with velocity given by  $\begin{bmatrix} 2 \\ 1 \end{bmatrix}$ , with wind blowing in the direction given

1 / 1 point