

## Readiness Assurance Outcomes

Before beginning this module, each student should be able to...

- Add Euclidean vectors and multiply Euclidean vectors by scalars.
- Perform basic manipulations of augmented matrices and linear systems (**Standard(s) E1,E2,E3**).
- Apply linear combinations and spanning sets (**Standard(s) V2,V3**).

## Readiness Assurance Resources

The following resources will help you prepare for this module.

- <https://www.khanacademy.org/math/precalculus/vectors-prec calc/vector-addition-subtraction/v/adding-and-subtracting-vectors>
- <https://www.khanacademy.org/math/precalculus/vectors-prec calc/combined-vector-operations/v/combined-vector-operations-example>

## Readiness Assurance Test

Choose the most appropriate response for each question.

- 1) Simplify the following vector expression. (TODO write a new one)

$$2 \begin{bmatrix} 3 \\ -1 \\ 0 \end{bmatrix} - 3 \begin{bmatrix} 0 \\ 2 \\ 1 \end{bmatrix}$$

(a)  $\begin{bmatrix} 0 \\ 4 \\ -7 \end{bmatrix}$

(b)  $\begin{bmatrix} 6 \\ -8 \\ -3 \end{bmatrix}$

(c)  $\begin{bmatrix} 3 \\ 2 \\ -5 \end{bmatrix}$

(d)  $\begin{bmatrix} -2 \\ 0 \\ 1 \end{bmatrix}$

- 2) TODO some problems based on module E.