

# Lab 6.5 Assessment

Due 6 Nov at 6:00

Points 3

Questions 3

Available 25 Oct at 6:00 - 6 Nov at 6:00

Time limit None

Allowed attempts 3

This quiz was locked 6 Nov at 6:00.

## Attempt history

	Attempt	Time	Score
LATEST	<a href="#">Attempt 1</a>	13 minutes	3 out of 3

⚠️ Answers will be shown after your last attempt

Score for this attempt: 3 out of 3  
Submitted 5 Nov at 15:13  
This attempt took 13 minutes.

Question 1

1 / 1 pts

How would you plot the vector  $a = [3,7]$  using the quiver command?

☐ quiver(a(1),a(2),0), axis equal

☐ quiver(a(1),a(2)), axis equal

☐ quiver(0,a(1),a(2),0), axis equal

☒ quiver(0,0,a(1),a(2),0), axis equal

Question 2

1 / 1 pts

Let  $M = \begin{bmatrix} 0 & -2 \\ 2 & 0 \end{bmatrix}$

Which statement geometrically describes what this linear transformation will do?

☐

Rotates counter clockwise through 90 degrees and quadruples the length.

☐

Rotates counterclockwise through 180 degrees.

☒

Rotates counterclockwise through 90 degrees and doubles the length.

☐

Rotates clockwise through 90 degrees and doubles the length.

### Question 3

1 / 1 pts

Suppose  $T: \mathbb{R}^n \rightarrow \mathbb{R}^m$  is a linear transformation and there is a vector  $\mathbf{v}$  (not the zero vector) such that  $T\mathbf{v}=\mathbf{v}$ . Then,

☒

T might be a rotation, shear, reflection or a projection

☐

T might be a reflection, projection or shear, but not a rotation

☐

T might be a reflection or projection, but not a rotation or shear

☐

T might be a reflection shear or rotation, but not a projection

Quiz score: **3** out of 3