

## Module G: Geometry of Linear Maps

### Readiness Assurance Outcomes

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

- Calculate the area of a parallelogram.
- Find the matrix corresponding to a linear transformation of Euclidean spaces **A1**.
- Recall and use the definition of a linear transformation **A2**.
- Find all roots of quadratic polynomials (including complex ones), and be able to use the rational root theorem to find all rational roots of a higher degree polynomial.
- Interpret the statement “ $A$  is an invertible matrix” in many equivalent ways in different contexts.

### Readiness Assurance Resources

The following resources will help you prepare for this module.

- Finding the area of a parallelogram (Khan Academy): <http://bit.ly/2B05iWx>
- Factoring quadratics (Khan Academy): <http://bit.ly/1XjfbV2>
- Finding complex roots of quadratics (Khan Academy): <http://bit.ly/1HH3yAA>