

### **Expectations**

- 2.2 The student will apply geometric properties to solve problems using tools and technology when appropriate.
- 2.3 The student will apply concepts of measurement using tools and technology when appropriate.

### **Essential Questions**

How are right triangles used to measure indirectly?

How are the areas of polygons and circles related and applied?

### **Enduring Understanding**

Indirect measurement is based on the properties of geometric figures.

### **Indicators**

- 2.2.2 solve problems using two-dimensional figures and/or right-triangle trigonometry.
  - 2.2.2.c solve problems using the Pythagorean theorem.
  - 2.2.2.d solve problems involving special right triangles including the relationships ( $30^\circ$ ;  $60^\circ$ ;  $90^\circ$ ) and ( $45^\circ$ ;  $45^\circ$ ;  $90^\circ$ ).
- 2.3.2 use techniques of measurement and will estimate, calculate, and/or compare perimeter, circumference, area, volume, and/or surface area of two- and three- dimensional figures and their parts.
  - 2.3.2.a apply techniques of measurement involving two-dimensional shapes, including polygons, circles, and composite figures.
  - 2.3.2.c apply geometric properties and relationships.