Expectations

2.1   The student will analyze two- and three- dimensional figures using tools and technology when appropriate.

2.2   The student will apply geometric properties and relationships to solve problems using tools and technology when appropriate.

Essential Questions

How are right triangles used to measure indirectly?

How are the relationships between the sides and angles of oblique triangles used to measure indirectly?

How is circular motion measured and applied?

How are vectors used to solve problems?

Enduring Understanding

Trigonometry can be used to measure indirectly.

Indicators

2.1.2   identify and/or verify properties of geometric figures using the coordinate plane and concepts from algebra.
            2.1.2.1 apply properties of transformation using coordinate geometry.

2.2.2 solve problems using two-dimensional figures and/or right-triangle trigonometry.

2.2.2.a identify and evaluate the sine, cosine, and tangent ratios for an acute angle of a right triangle.
2.2.2.b apply right-triangle trigonometry to solve real-world problems.

> *2.2.2.1 apply the Law of Sines and the Law of Cosines to solve problems involving oblique triangles.*
>
> *2.2.2.2 determine the sine, cosine, and tangent for a rotational angle.*
>
> *2.2.2.3 solve problems using vectors.*