

<b>Competency Coordinate Plane Geometry-</b> I can use knowledge of the rectangular coordinate plane in order to find key features of various geometric figures.			
<b>Standard</b> – G.GPE.7 Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.★			
Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<ul style="list-style-type: none"><li>• Boundary</li><li>• Coordinate Plane</li><li>• Coordinates</li><li>• Distance Formula</li></ul>	<ul style="list-style-type: none"><li>• Perimeter</li><li>• Point</li><li>• Polygon</li><li>• Vertices</li></ul>
3.0	<b>PCP1- I can compute the perimeter of polygons on the coordinate plane</b>	<b>Resources</b>	
2.0	<ul style="list-style-type: none"><li>• State that a polygon is a closed two-dimensional figure with straight sides.</li><li>• State that perimeter is the distance around the boundary of a figure.</li><li>• Identify the coordinates of the vertices of a polygon on the coordinate plane.</li><li>• State the distance formula: .</li><li>• Explain that the distance formula can be used to calculate the distance between any two points and on the coordinate plane.</li><li>• State that the perimeter of a polygon is equal to the sum of the lengths of its sides.</li></ul>		
<b>Evidence</b>			

<b>Competency Coordinate Plane Geometry-</b> I can use knowledge of the rectangular coordinate plane in order to find key features of various geometric figures.			
<b>Standard</b> – G.GPE.7 Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.★			
Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<ul style="list-style-type: none"><li>• Area</li><li>• Coordinate Plane</li><li>• Coordinates</li><li>• Distance Formula</li><li>• Heron's Formula</li><li>• Perimeter</li></ul> <ul style="list-style-type: none"><li>• Point</li><li>• Polygon</li><li>• Rectangle</li><li>• Semiperimeter</li><li>• Triangle</li><li>• Vertices</li></ul>	
3.0	<b>PCP2- I can compute the areas of triangles and rectangles on the coordinate plane</b>		
2.0	<ul style="list-style-type: none"><li>• Use the distance formula to calculate the length of the sides of a triangle on the coordinate plane.</li><li>• State that the perimeter of a polygon is equal to the sum of the lengths of its sides.</li><li>• Explain that one half of the perimeter of a triangle is known as its semiperimeter.</li><li>• State Heron’s formula for the area of a triangle: , in which is the semiperimeter of a triangle and , , and , are the lengths of its sides.</li><li>• State the formula for the area of a rectangle: , in which is the width of the rectangle and is its height.</li><li>• Use the distance formula to calculate the length of the sides of a rectangle on the coordinate plane.</li></ul>	Resources	
		<ul style="list-style-type: none"><li>• Type here</li></ul>	
Evidence			

<b>Competency Coordinate Plane Geometry-</b> I can use knowledge of the rectangular coordinate plane in order to find key features of various geometric figures.			
Standard - Description			
Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<ul style="list-style-type: none"><li>• Area</li><li>• Coordinate Plane</li><li>• Coordinates</li><li>• Distance Formula</li><li>• Heron's Formula</li><li>• Perimeter</li></ul>	<ul style="list-style-type: none"><li>• Point</li><li>• Polygon</li><li>• Rectangle</li><li>• Semiperimeter</li><li>• Triangle</li><li>• Vertices</li></ul>
3.0	<b>I can verify the properties of polygons from their coordinates.</b>		
		Resources	
2.0	<p>The student will recognize or recall specific vocabulary (for example, <i>coordinate plane, coordinates, distance formula, endpoint, line segment, parallel, perpendicular, point, polygon, slope, vertices</i>) and perform basic processes such as:</p> <ul style="list-style-type: none"><li>• Explain that the distance formula can be used to calculate the distance between any two points <math>(x_1, y_1)</math> and <math>(x_2, y_2)</math> on the coordinate plane.</li><li>• State that slope is the vertical change over the horizontal change between any two points on a line.</li></ul>	<ul style="list-style-type: none"><li>• Type here</li></ul>	
Evidence			

**Competency Coordinate Plane Geometry-** I can use knowledge of the rectangular coordinate plane in order to find key features of various geometric figures.

**Standard** – G.GPE.1 Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.

Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<ul style="list-style-type: none"><li>• Boundary</li><li>• Center</li><li>• Circle</li><li>• Circumference</li><li>• Coordinate Plane</li><li>• Hypotenuse</li></ul>	<ul style="list-style-type: none"><li>• Legs</li><li>• Plane</li><li>• Point</li><li>• Pythagorean Theorem</li><li>• Radius</li><li>• Right Triangle</li></ul>
3.0	<b>EC1- I can derive the equation of a circle from its center and radius</b>		
2.0	<ul style="list-style-type: none"><li>• Explain that the equation of a circle describes all of the points that are a specified distance away from a specified central point.</li><li>• Construct a right triangle atop two points on a coordinate plane such that its legs are parallel to the x- and y-axes and its hypotenuse is the distance between the points.</li><li>• Explain that the x- and y-coordinates of any point on the circumference of a circle centered on the origin will correspond to the lengths of the legs of a right triangle whose hypotenuse connects the point to the center of the circle and whose legs are parallel to the x- and y-axes.</li><li>• Explain that the Pythagorean Theorem (<math>a^2 + b^2 = c^2</math>) states that the sum of the squares of the legs of a right triangle is equal to the square of its hypotenuse.</li><li>• Explain that the square of the radius of a circle centered on the origin will be equal to the sum of the squares of the x- and y-coordinates of any point on the circumference of the circle.</li><li>• Calculate the difference in the horizontal and vertical directions between any two points on a coordinate plane. For example, for any point <math>(x,y)</math> and a point <math>(h,k)</math> on the coordinate plane, calculate the difference in the horizontal direction between the points as <math>x - h</math> and the difference in the vertical direction as <math>y - k</math>.</li></ul>	Resources	
		<ul style="list-style-type: none"><li>• Type here</li></ul>	

Competency Coordinate Plane Geometry- I can use knowledge of the rectangular coordinate plane in order to find key features of various geometric figures.			
Standard – G.GPE.1			
Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<div><div><ul style="list-style-type: none"><li>• Boundary</li><li>• Center</li><li>• Circle</li><li>• Circumference</li><li>• Completing the Square</li><li>• Factor</li></ul></div><div><ul style="list-style-type: none"><li>• Perfect Square Trinomial</li><li>• Plane</li><li>• Point</li><li>• Radius</li><li>• Second-Degree Polynomial</li></ul></div></div>	
3.0	<b>EC2- I can determine the center and radius of a circle from its equation</b>		
		Resources	
2.0	<div><ul style="list-style-type: none"><li>• Identify the standard equation of a circle as <math>(x - h)^2 + (y - k)^2 = r^2</math> in which <math>(h, k)</math> is the center and <math>r</math> is the length of the radius.</li><li>• Identify perfect square trinomials.</li><li>• Explain how to complete the square of a second-degree polynomial to form a perfect square trinomial.</li><li>• Demonstrate how to factor perfect square trinomials</li><li>• Manipulate the equation of a circle into the form <math>(x - h)^2 + (y - k)^2 = r^2</math>.</li></ul></div>	<div><ul style="list-style-type: none"><li>• Type here</li></ul></div>	
Evidence			

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Standard – G.GPE.1			
Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<ul style="list-style-type: none"><li>• Boundary</li><li>• Center</li><li>• Circle</li><li>• Circumference</li><li>• Completing the Square</li><li>• Factor</li><li>• Perfect Square Trinomial</li><li>• Plane</li><li>• Point</li><li>• Radius</li><li>• Second-Degree Polynomial</li></ul>	
3.0	<b>PPC1- I can give an informal argument for the formula of the circumference of a circle.</b>		
2.0	<ul style="list-style-type: none"><li>• Identify the standard equation of a circle as <math>(x - h)^2 + (y - k)^2 = r^2</math> in which <math>(h, k)</math> is the center and <math>r</math> is the length of the radius.</li><li>• Identify perfect square trinomials.</li><li>• Explain how to complete the square of a second-degree polynomial to form a perfect square trinomial.</li><li>• Demonstrate how to factor perfect square trinomials</li><li>• Manipulate the equation of a circle into the form <math>(x - h)^2 + (y - k)^2 = r^2</math>.</li></ul>	Resources	
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**Competency Coordinate Plane Geometry-** I can use knowledge of the rectangular coordinate plane in order to find key features of various geometric figures.

Standard – G.GPE.1

Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<ul style="list-style-type: none"><li>• Boundary</li><li>• Center</li><li>• Circle</li><li>• Circumference</li><li>• Completing the Square</li><li>• Factor</li></ul>	<ul style="list-style-type: none"><li>• Perfect Square Trinomial</li><li>• Plane</li><li>• Point</li><li>• Radius</li><li>• Second-Degree Polynomial</li></ul>
3.0	<b>PPC2- I can use radian measure to describe the relationship between the length of an arc of a circle and the circle's radius</b>		
2.0	<ul style="list-style-type: none"><li>• Identify the standard equation of a circle as <math>(x - h)^2 + (y - k)^2 = r^2</math> in which <math>(h, k)</math> is the center and <math>r</math> is the length of the radius.</li><li>• Identify perfect square trinomials.</li><li>• Explain how to complete the square of a second-degree polynomial to form a perfect square trinomial.</li><li>• Demonstrate how to factor perfect square trinomials</li><li>• Manipulate the equation of a circle into the form <math>(x - h)^2 + (y - k)^2 = r^2</math>.</li></ul>	<b>Resources</b>	
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Evidence			

**CoCompetency Coordinate Plane Geometry-**

I can use knowledge of the rectangular coordinate plane in order to find key features of various geometric figures.

Standard – G.GPE.1

Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<ul style="list-style-type: none"><li>• Boundary</li><li>• Center</li><li>• Circle</li><li>• Circumference</li><li>• Completing the Square</li><li>• Factor</li></ul>	<ul style="list-style-type: none"><li>• Perfect Square Trinomial</li><li>• Plane</li><li>• Point</li><li>• Radius</li><li>• Second-Degree Polynomial</li></ul>
3.0	<b>CC1- I can describe the relationship between the chords, radii, diameters, tangents, and secants of a circle.</b>		
2.0	<ul style="list-style-type: none"><li>• Know the vocabulary for circle, chord, radius, diameter, tangent, and secant.</li></ul>	Resources	
		<ul style="list-style-type: none"><li>• Type here</li></ul>	
Evidence			



<b>Competency Coordinate Plane Geometry-</b> I can use knowledge of the rectangular coordinate plane in order to find key features of various geometric figures.			
Standard – G.GPE.1			
Learning Targets & Skills		Vocabulary	
4.0	Student goes above and beyond simple mastery to demonstrates a deeper understanding than a Level 3.0.	<ul style="list-style-type: none"><li>• Boundary</li><li>• Center</li><li>• Circle</li><li>• Circumference</li><li>• Completing the Square</li><li>• Factor</li><li>• Perfect Square Trinomial</li><li>• Plane</li><li>• Point</li><li>• Radius</li><li>• Second-Degree Polynomial</li></ul>	
3.0	<b>CC2- I can construct a line tangent to a circle from a point outside of the circle.</b>		
2.0	<ul style="list-style-type: none"><li>• Know the vocabulary for circle, chord, radius, diameter, tangent, and secant.</li></ul>	Resources	
		<ul style="list-style-type: none"><li>• Type here</li></ul>	
Evidence			

<b>Competency Coordinate Plane Geometry-</b> I can use knowledge of the rectangular coordinate plane in order to find key features of various geometric figures.			
Standard – G.GPE.1			
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3.0	<b>CC3- I can prove that all circles are similar</b>		
2.0	<div><ul style="list-style-type: none"><li>• Know the vocabulary for circle, chord, radius, diameter, tangent, and secant.</li></ul></div>	Resources	
		<div><ul style="list-style-type: none"><li>• Type here</li></ul></div>	
Evidence			