

Common Core State Standards for Mathematics		
Domain: Expressing Geometric Properties with Equations		
Conic Sections (translate between the geometric description and the equation for a conic section) (G-GPE)		
High School		
Score 4.0	In addition to Score 3.0, in-depth inferences and applications that go beyond instruction to the standard. The student will:	Example Activities
	<ul style="list-style-type: none"> <li>derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant (G-GPE.3)</li> </ul>	
3.5	In addition to score 3.0 performance, in-depth inferences and applications with partial success.	
Score 3.0	<p><b>The student will:</b></p> <ul style="list-style-type: none"> <li>derive the equation of a circle of given center and radius using the Pythagorean theorem (G-GPE.1)</li> <li>complete the square to find the center and radius of a circle given by an equation (G-GPE.1)</li> <li>derive the equation of a parabola given a focus and directrix (G-GPE.2)</li> </ul> <p><b>The student exhibits no major errors or omissions.</b></p>	Students will work individually and will be given a set of circle equations that require the students to complete the square in order to find the center and the radius of the circle. Students will then be asked to participate in a carousel activity in which they will rotate to different partners to check and verify the accuracy of one problem at a time. Each time the students rotate to a new partner they must agree upon a common solution between the two of them. If there is disagreement they must discuss and come to an agreement.
2.5	No major errors or omissions regarding 2.0 content and partial knowledge of the 3.0 content	
Score 2.0	<p><b>There are no major errors or omissions regarding the simpler details and processes as the student will:</b></p> <ul style="list-style-type: none"> <li>recognize or recall specific vocabulary, such as: <ul style="list-style-type: none"> <li>parabola, focus, directrix, ellipse, hyperbola</li> </ul> </li> <li>perform basic processes, such as: <ul style="list-style-type: none"> <li></li> </ul> </li> </ul> <p><b>However, the student exhibits major errors or omissions regarding the more complex ideas and processes.</b></p>	<u>Interactive Word Wall</u> – Students will interact with key vocabulary such as parabola, focus, directrix, ellipse, hyperbola by creating an example or drawing a picture of each word. The students will place the non-linguistic representation of each word into their interactive vocabulary notebooks. These vocabulary notebooks are used during practice and even during assessment to allow the students to access key concepts in their memory using their own non-linguistic representations.
1.5	Partial knowledge of the 2.0 content but major errors or omissions regarding the 3.0 content	
Score 1.0	<b>With help, a partial understanding of some of the simpler details and processes and some of the more complex ideas and processes.</b>	
0.5	With help, a partial understanding of the 2.0 content but not the 3.0 content	
Score 0.0	<b>Even with help, no understanding or skill demonstrated.</b>	