

MPM 2D Learning Goals & Success Criteria
Chapter 2: Analytic Geometry – Line Segments and Circles

Learning Goals	
<p>I will be able to:</p> <ul style="list-style-type: none"> • solve problems that relate to the properties of lines and line segments by applying my knowledge of analytic geometry. (AG2) • verify geometric properties of triangles and quadrilaterals by applying my knowledge of analytic geometry. (AG3) 	
Success Criteria	
<p>I can:</p> <ul style="list-style-type: none"> • Explain the midpoint formula, and use it to solve problems; • Explain the formula for length of a line segment, and use it to solve problems; • Develop the equation of a circle centered at the origin, and use it to find unknown values; • Solve problems that combine the slope, midpoint, and length formulas (ex/ finding equations of perpendicular bisectors, medians, and altitudes, the distance from a point to a line, etc.) ; • Verify, using algebraic techniques and analytic geometry, characteristics of geometric figures; • Plan and implement a multi – step strategy to verify a geometric property (ex/ verify that two diagonals bisect at right angles, find the area of a triangle, etc.). 	
Test Information:	
<p>Your test is Thursday, March 12th. You can take up to ten minutes of lunch to check your work if you need to. If you are leaving early for vacation you should write on Wednesday.</p>	
<p>There is a more detailed test outline below. Please refer to that while you study.</p> <p>To study:</p> <ul style="list-style-type: none"> • Review your notes and complete the organizer on the back side of this page. • COMPLETE THE STUDY NOTE ON THE BACK SIDE OF THIS OUTLINE! • Redo your quizzes. • Complete questions in the suggested review or homework that you feel that you need to do. 	
Questions to Expect	<ul style="list-style-type: none"> • Find the coordinates of an endpoint (AG2) • Find the perimeter of a shape (AG2) • Write equations of circles (AG2) • Locate the center of mass of a triangle, and explain what that point represents (AG3) • Find the area of a triangle using analytic geometry. (AG3) • Select one of two short answer questions explaining concepts included in AG2. • Select one of two short answer questions explaining concepts included in AG3. • Verify geometric properties – questions like 2.4, 2.5, 2.6 in the textbook. (AG3) • Distance from a point to line. (AG2).
To prepare	<ul style="list-style-type: none"> • Go through your notes and the examples in them. • Complete the organizer on the back of this page. • See calendar on Edsby or the course website for text book questions. • I can also provide extra handouts to practice specific things (integers, fractions, solving equations, substitution, finding equations of lines, calculating slope, etc.)
<p>Notes: Please study. Do the review, but also review your notes. If you need help, come in before school on Friday or Tuesday or message me through Edsby. Please do not leave everything until Monday night. If you have been working consistently throughout this unit you will be fine. It is a lot of information to cram in to your head the night before though!!</p>	

Midpoint formula, notes, and sample problems:	Length formula, notes and sample problems:	Equation of a circle, and sample problems:
Sample problems that combine the slope, midpoint, and length formulas (ex/ finding equations of perpendicular bisectors, medians, and altitudes, the distance from a point to a line, etc.)		
Sample problems that make you verify, using algebraic techniques and analytic geometry, characteristics of geometric figures		
Sample problems that make you plan and implement a multi – step strategy to verify a geometric property (ex/ verify that two diagonals bisect at right angles, find the area of a triangle, etc.).		

These come from the success criteria. Identify specific questions that meet them! I have provided some ideas as examples. Make notes beside your sample solutions to explain why you are doing what you are doing. Please try to UNDERSTAND the process. MEMORIZING does not work!!