

	Original Lesson	EASyR Lesson
Lesson Overview and Objectives	<p>Audience: The original lesson is intended for seventh grade math students.</p> <p>The CCSS addressed is: 7.G.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.</p> <p>Lesson Objectives include:</p> <ol style="list-style-type: none"> 1. Find a scale factor between two shapes. 2. Use scale factors to determine a missing scale or actual value. 3. Understand unit conversions. 	<p>The lesson includes the same standard and objectives.</p> <p>The key difference is that there is a more investigative and reflective approach rather than skill and drill. This approach allows students to deepen their understanding and develop an authentic connection to the content.</p>
Instruction	<p>Students will be taught about what a scale factor is and how to use it. It is an extension of their ratio and proportional reasoning unit.</p> <p>Students will compare and determine if two figures are similar, meaning do they have a common ratio that all sides follow.</p> <p>After they practice similarity, the term scale factor will be used for the common ratio.</p> <p>Students will use the scale factor will be applied to find the missing side of one figure, whether it be the image or the model.</p> <p>Student understanding will be applied in authentic situations like reading the blueprint of a house and determining the dimensions by using the scale factor.</p>	<p>Prior to the activities, students will discuss similar figures in their ratio and proportional reasoning unit.</p> <hr/> <p>Evaluate Students will practice using scale factors to read a map and find distances between towns.</p> <hr/> <p>Analyze Students will respond to a discussion board prompt. Prompt: Is it essential that scale factors of all maps are the same? What makes you think so? Extension: What happens to the scale factor of a map if you “zoom” in on a city? Redirect: When is it important to use the same scale factor? When is it beneficial to have different scale factors?</p> <hr/> <p>Synthesize Students will reflect on other uses of scale factors. They are to record another use of a scale factor (model car, photography, floor plan of a house...). Then students will create an authentic example of a real world problem to solve and provide the solution. (For example, I am furniture shopping and need to know what will fit in my room. Having a floor plan of the room will allow me to convert on my grid paper room and determine if I can fit the furniture.)</p> <hr/> <p>Reflect Students will relate their work with proportional reasoning on a graph as direct variation and slope. They will work to bridge a connection between unit rate, scale factor, and slope.</p>