

	<p><b>Math Learning Goals</b></p> <ul style="list-style-type: none"> <li>• Represent a whole as a sum of parts in many ways.</li> </ul>	<p><b>Materials</b></p> <ul style="list-style-type: none"> <li>• manipulatives - pattern blocks, fraction circles, fraction strips, centimeter grid paper</li> <li>• chart paper</li> <li>• markers</li> </ul>
<p><b>Minds On...</b></p> <p><b>DI</b></p>	<p><b>Individual → Activating Prior Knowledge</b>                  Students choose any manipulative and identify a whole. They select different pieces that represent parts of the whole and identify the parts.</p> <p><b>Differentiate content based on student readiness by allowing students to choose the manipulative.</b></p> <p><b>Whole Group → Share</b>                  Facilitate the sharing of the different choice of manipulatives, and the identification of the whole and its parts.                  How do you know that this piece represents, e.g., one quarter?                  Is there a limit to the number of pieces that you can identify? Why or why not?</p>	<p>Review terminology such as fraction, part, whole, etc.</p> <p>Show how if using grid paper that the whole could be any size rectangle.</p> <p>Consider modeling an example for the class before students begin the task.</p>
<p><b>Action!</b></p> <p><b>DI</b></p>	<p><b>Individual → Explore/Practice</b>                  Students cover the whole with parts and write an addition sentence that describes the sum of the parts.</p> <p><b>Differentiate process based on student readiness by allowing students to create the whole using their own choice of combination of parts.</b></p> <p><b>Pairs → Compare and Contrast</b>                  Students share and compare their manipulative models with addition sentences. Pairs consider... what is the same/different about their models and addition sentences.</p> <p><b>Whole Group → Share and Discuss</b>                  Facilitate the sharing of the different addition sentences, emphasizing that all addition sentences add to one whole.</p>	<p><b>Student Samples</b></p> <p>Grade 7</p> <p>Grade 8</p>
<p><b>Consolidate Debrief</b></p>	<p><b>Whole Class → Reflect and Discuss</b>                  Students consider how breaking up a whole into different parts shows that there are different ways to add fractions to total 1.</p>	
<p><i>Concept Practice Differentiated</i></p>	<p><b>Home Activity or Further Classroom Consolidation</b>                  Using any manipulative, create a whole using parts. Remove one part and create an addition sentence that describes the sum of the parts using a box as a place holder for the missing part. Share your addition sentence with a partner who determines the missing part. Explain your thinking.</p> <p>Consider some of the following questions during the share:</p> <ul style="list-style-type: none"> <li>• How do you know that the missing part is less than <math>\frac{1}{5}</math> ?</li> <li>• Why did you choose that manipulative instead of the pattern blocks to help you?</li> </ul>	