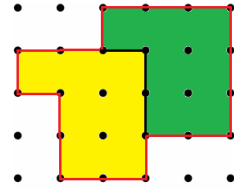


Where are the Congruent Halves?—Answer Key

Directions:

1. Each figure can be made from 2 congruent figures.
2. Find the congruent figures by drawing in one or more segments.
3. Use patty paper to verify that your answer is correct for each problem.
4. The solution for problem # 1 is given to the right.

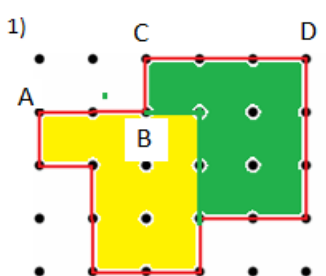
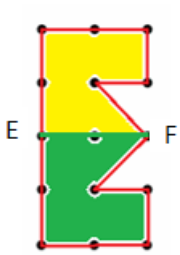
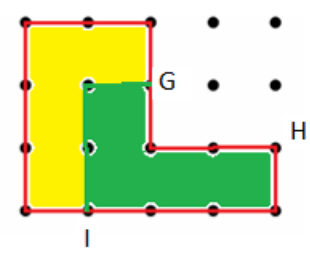
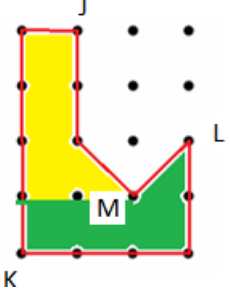


1) 	2) 	3)
4) 	5) 	6)
7) 	8) 	9)
10) 		

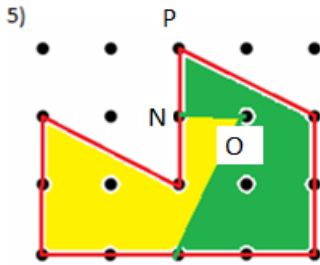
Definition of Congruent Figures:

Two figures are congruent if and only if there is a sequence of reflections, translations, and/or rotations that maps one figure onto the other.

Describe a sequence of transformations that would map each half to its congruent half. Label one figure “A” and the other figure “B” before you describe the transformation.

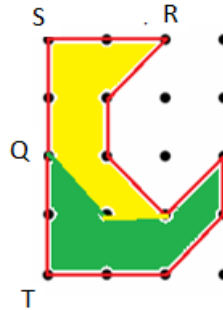
<p>Problem 1</p> <p>1)</p>  <p>[Answers will vary. Translate the yellow figure until Point A maps to Point C.]</p>	<p>Problem 2</p> <p>2)</p>  <p>[Answers will vary. Reflect the yellow figure over Segment EF.]</p>
<p>Problem 3</p> <p>3)</p>  <p>[Answers will vary. Rotate the yellow figure about Point G until Point I maps to Point H.]</p>	<p>Problem 4</p> <p>4)</p>  <p>[Answers will vary. Translate the yellow figure until Point J maps to Point K. Then rotate the yellow figure about Point J' until Point M' maps to Point L.]</p>

Problem 5



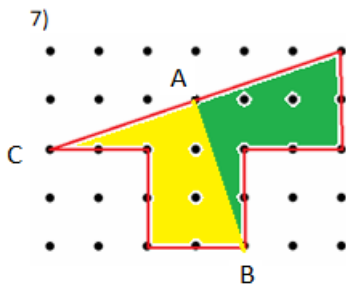
5) [Answers will vary.
 Rotate the yellow figure about Point N until Point O maps to Point P.]

Problem 6



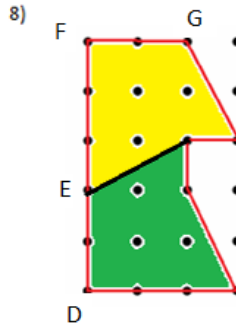
6) [Answers will vary.
 Translate the yellow figure until Point Q maps to Point R. Then rotate the yellow figure about Point Q' until Point T' maps to Point S.]

Problem 7



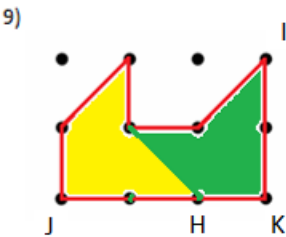
7) [Answers will vary.
 Rotate the yellow figure about Point A until Point C maps to Point B.]

Problem 8



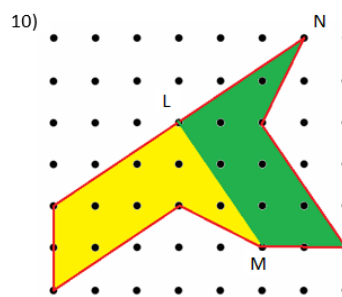
8) [Answers will vary.
 Translate the yellow figure until Point F maps to Point D. Then rotate the yellow figure about Point F' until Point G' maps to Point E.]

Problem 9



9) [Answers will vary.
 Translate the yellow figure until Point H maps to Point I. Then rotate the yellow figure about Point H' until Point J' maps to Point K.]

Problem 10



10) [Answers will vary.
 Rotate the yellow figure about Point L until Point M maps to Point N.]