

Just In Time Quick Check
Standard of Learning (SOL) 3.12c

Strand: Measurement and Geometry

Standard of Learning (SOL) 3.12c

The student will combine and subdivide polygons with three or four sides and name the resulting polygon(s).

Grade Level Skills:

- Combine no more than three polygons, where each has three or four sides, and name the resulting polygon.
- Subdivide a three-sided or four-sided polygon into no more than three parts and name the resulting polygon(s).

Just in Time Quick Check

Just in Time Quick Check Teacher Notes

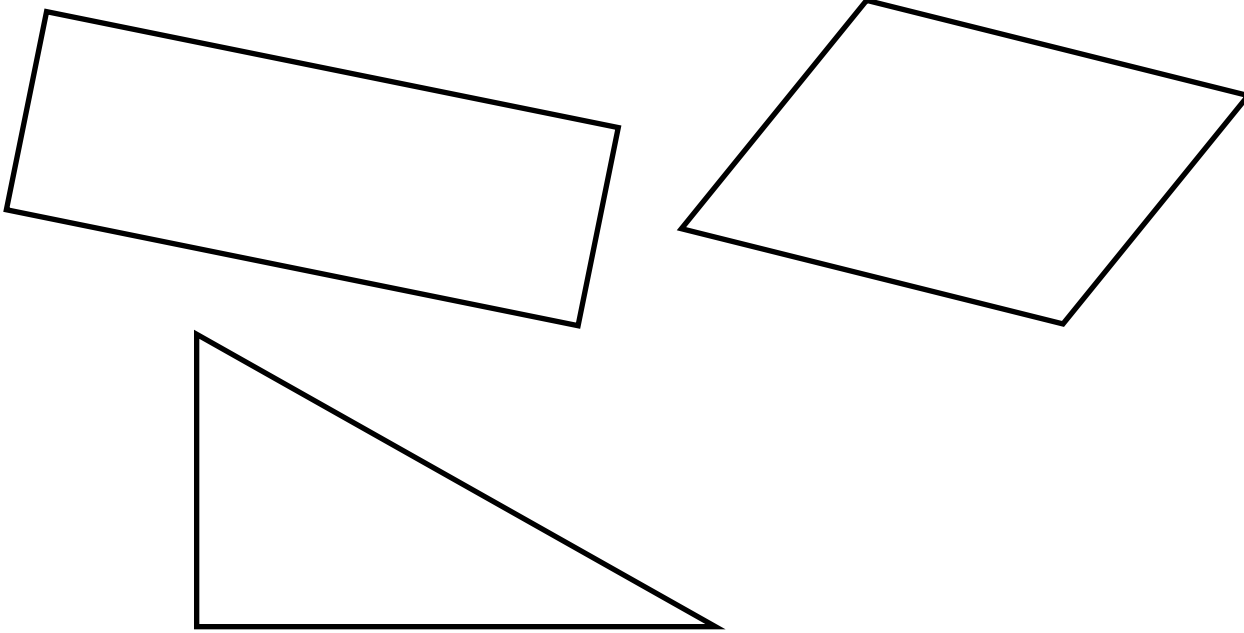
Supporting Resources:

- VDOE Mathematics Instructional Plans (MIPS)
 - [3.12c - Combining Polygons](#) (Word) / [PDF Version](#)
 - [3.12c - Subdividing Polygons](#) (Word) / [PDF Version](#)
 - [3.12c - What is It Worth?](#) (Word) / [PDF Version](#)
- VDOE Word Wall Cards: Grade 3 ([Word](#)) / [PDF](#)
 - Plane Figures
 - Polygons: Triangles
 - Polygons: Quadrilaterals
 - Polygons: Pentagon, Hexagon, Heptagon, Octagon
 - Polygons: Nonagon and Decagon
 - Subdivide
 - Combine
 - Rectangle: Right Angle
 - Square: Right Angle
 - Triangle: Side and Vertex

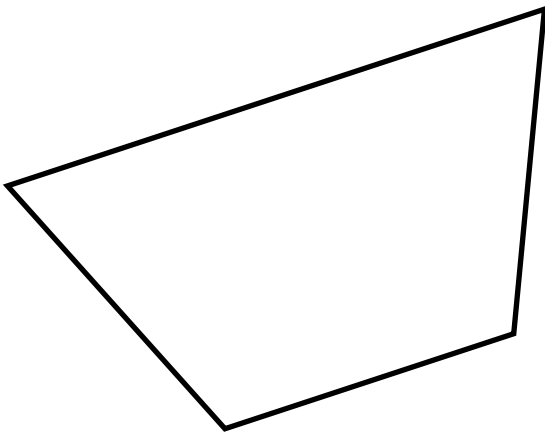
Supporting and Prerequisite SOL: [3.12a](#), [3.12b](#), [2.13](#), [1.11a](#), [1.11b](#)

SOL 3.12c - Just in Time Quick Check

- 1) Cut out the given shapes. Use glue or tape to combine the shapes. Name the resulting polygon.



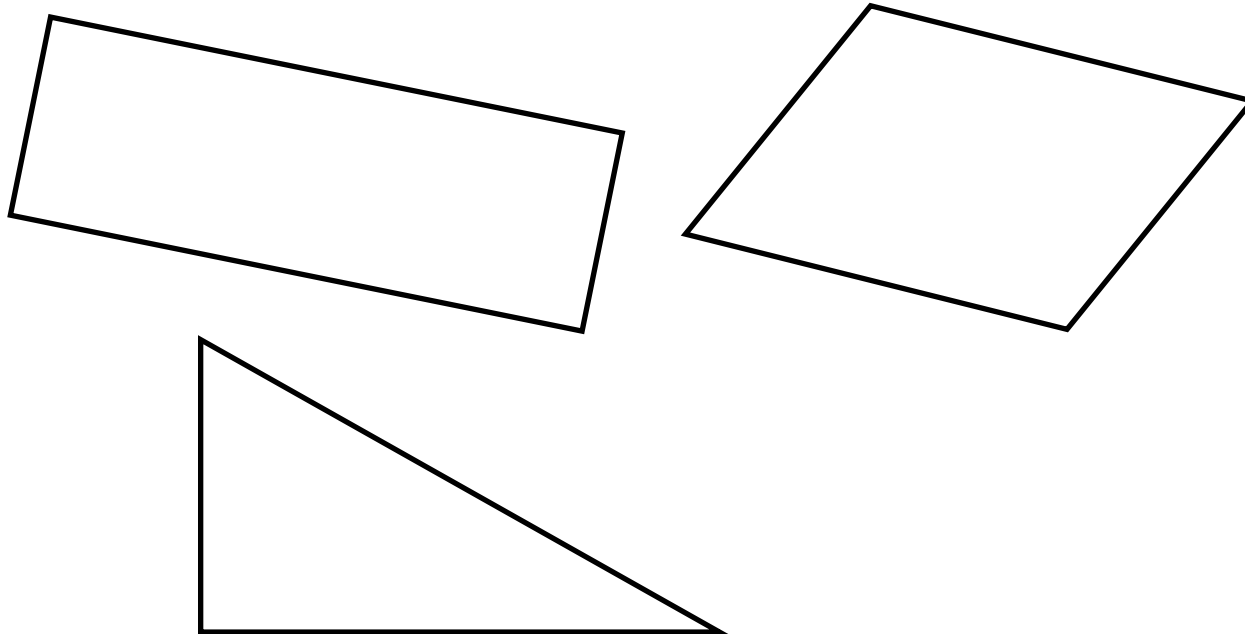
- 2) Use a straight edge to subdivide the given shape into three polygons. Label each of the three resulting polygons.



SOL 3.12c - Just in Time Quick Check Teacher Notes

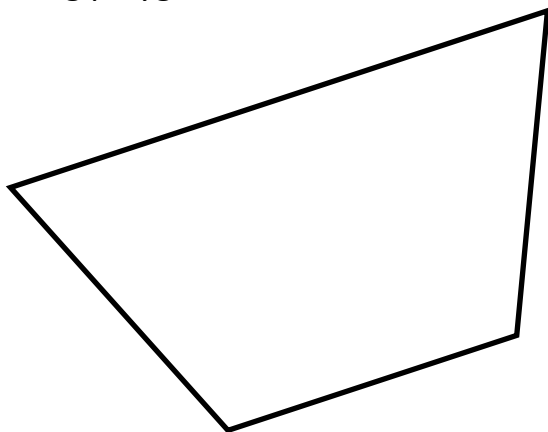
Common Errors/Misconceptions and their Possible Indications

- 1) Cut out the given shapes. Use glue or tape to combine the shapes. Name the resulting polygon.



Students may have difficulty seeing the combined figure as one whole shape. Students may count all of the line segments, not just the exterior sides, to determine the number of sides and the name of the polygon. It may help students to label the exterior sides. It may also help to trace the new shape without tracing the interior segments. Teachers may provide a word bank to assist with learning polygon names, but provide these names out of number order to be sure that students are thinking about the meaning of the prefix and not counting the order.

- 2) Use a straight edge to subdivide the given shape into three polygons. Label each of the three resulting polygons.



Students may not realize that now different polygons may be sharing a side. It may be helpful to have students cut out the resulting shapes to determine the names of these polygons. Use tangrams and pattern blocks for practice with manipulatives to build understanding for combining and subdividing polygons.