

## A Model Intermediate Grade Lesson

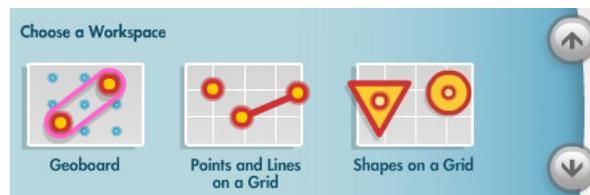
**Introduction** This guide explains how to use Tools4Math to model an intermediate grade level math skill, finding the perimeter of an object.

For this model lesson, use the Geometry tool to find the perimeter of a five-sided object.

**Launch Tools4Math** Find Tools4Math within Pearson SuccessNet in the enVisionMATH Premium Digital System. Access Tools4Math by clicking the Tools4Math icon at the top of every lesson window. Click the Tools4Math icon.

**Select the Geometry Tool** Use the Geometry tool in this lesson. Click the down arrow to find the Geometry tool, and then click **Get Started**.

Use the Shapes on a Grid workspace for this lesson in order to create or select objects on the workspace. To find this tool variation, go to the Options menu. Use the up or down arrows until I find workspace. Click **Workspace** to display the various modes. Select the Shapes on a Grid workspace, and Click **Done**.



**Skill Review: Perimeter** To begin the lesson, first review what students recently learned about perimeter and measuring the distance around objects. Discuss measuring the perimeter of common objects, such as a rectangle, and also measuring the perimeter of an irregular object, such as a polygon. Also discuss why distance around objects would be measured.

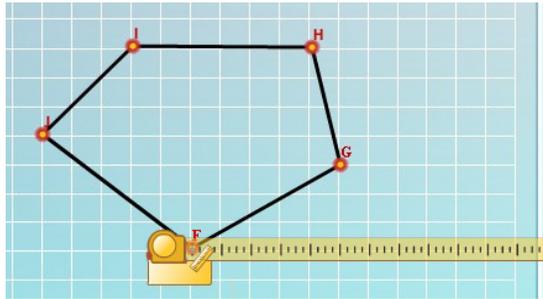
Begin the activity of determining perimeter by measuring and adding the lengths of all sides of an irregular-shaped polygon.

**Measure to Find Perimeter** To begin, create a five-sided polygon. Click the polygon tool in the manipulatives box.



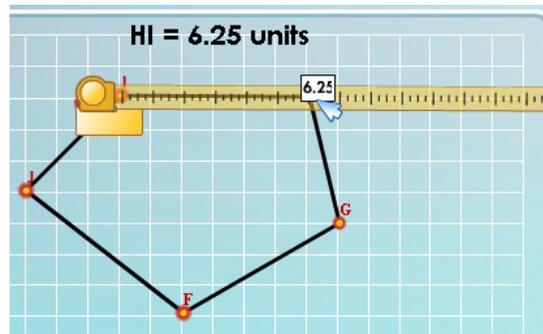
Click once in the workspace to create the first point. Move the cursor and click to place the second point. Repeat for the third, fourth, and fifth points. Now, click on top of the first point to close the five-sided shape.

Now, select the ruler from the toolbox and double-click the crosshairs on any vertex of the shape. This will expand the ruler.



Move the mouse toward an adjoining vertex and single-click on the vertex to secure the ruler's position. Hover the mouse over that vertex and the length of the side will appear. Have students write down the length of this side. Use the vertex labels to name the side, such as side FG is 5.75 units.

Go to another vertex and double-click to set the ruler at a new starting point. Move the mouse to an adjoining vertex of a side not yet measured. Click on the vertex to secure the ruler's position. Then, hover the mouse over that vertex to display the length.



Have students record the length. Repeat this process until all five sides of the polygon have been measured.

Now that all five sides have been measured, add them together to find the perimeter. This shape has a perimeter of 16.75 units.

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## Review

This guide demonstrated how to use the Geometry tool to measure the perimeter of an object. Students can create their own closed shapes to measure using the Geometry tool.

For more information, please watch the other Tools4Math tutorials on this Web site.