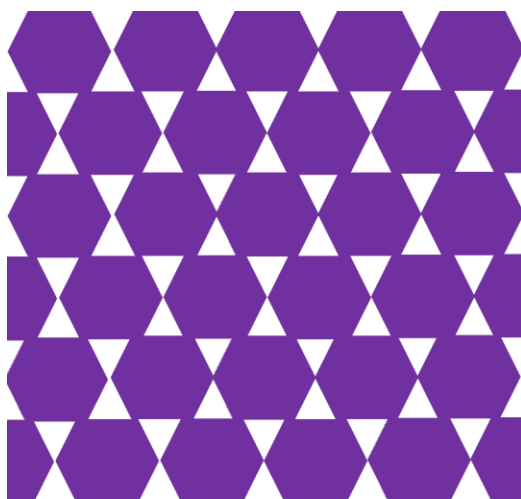# Module 9: Polygons
Module Assessment: Creating a Tessellation

Creating a Tessellation

Now that you have explored interior angles, exterior angles, and tessellations, use your knowledge to create your own tessellation. In this module, you have explored regular polygons that have tessellated the plane. In this assignment, see if you can find two or even three polygons that together will tessellate.

Use one of the options listed below to create your tessellation. After you have finished your tessellation, name the two or three polygons that make up your tessellation. Using your knowledge of interior and exterior angles, show that the angles around a point of tessellation add up to 360°. You may not use the example below for your own.

Example:

Polygons: Regular Hexagon and Regular Triangles

To find the interior angle of the two **regular hexagons**:	To find the interior angle of the two **regular triangles**:
First, you have to find the sum of the interior angles by using $180(n-2)$.	First, you have to find the sum of the interior angles by using $180(n-2)$.
$180(6-2)$ Substitute 6 for n. $180(4)$ Simplify $720°$ Multiplied	$180(3-2)$ Substitute 3 for n. $180(1)$ Simplify $180°$ Multiplied
Second, you need to divide the sum by the number of sides: $\dfrac{720}{6}$ $120°$ Divided 720 by 6 Each interior angle of the regular hexagons is 120°.	Second, you need to divide the sum by the number of sides: $\dfrac{180}{3}$ $60°$ Divided 180 by 3. Each interior angle of the regular hexagons is 120°.

Finally, add all the interior angles:

$$120 + 120 + 60 + 60 = 360$$

Therefore, all the interior angles around a point of tessellation add up to 360°.

Options to create your tessellation include the following.
- Hand-draw the tessellation and then take a picture of it for submission to the assignment's dropbox.
- Hand-draw the tessellation and then scan it for submission to the assignment's dropbox.
- Use a template in a word-processing, presentation, paint, or graphics program and utilize the software to create the tessellation. You can then submit your work to the assignment's dropbox.
- Use a mobile- or computer-based application to create the tessellation and email or export the final product for submission to the assignment's dropbox.

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