Name: _____ Date: _____ Hour: _____

A New Look at Boxing

Activity 2 Worksheet

1. Given a regular polygon with 10 sides:

a) Find the measure of an exterior angle of the polygon.

b) Find the measure of an interior angle of the polygon.

c) Find the sum of the measures of the interior angles of the polygon.

2. Determine the sum of the measures of the exterior angles for a regular polygon with:

a) 3 sides b) 6 sides c) n sides

3. Determine the measure of one exterior angle for a regular polygon with:

a) 5 sides b) 9 sides c) n sides

4. Determine the measure of one interior angle for a regular polygon with:

a) 5 sides b) 9 sides c) n sides

5. An artist is designing a sculpture that includes a polygon with 60 sides. Find the measure of one interior angle of the polygon.

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6. Given that the measure of one interior angle of a polygon is 150°, find the following:

   a) the measure of one exterior angle of the polygon

   b) the number of sides in the polygon

7. A landscaper wants to create a flower garden that resembles tessellated regular octagons. Is it possible to create a design that tessellates octagons? Explain your response.

8. Discuss 2 examples in real life where tessellations may be used. You can not use tiling a floor as an example. Observe your surroundings. Your answers should be in completel sentences discussing thoughts fully and possibly sketching or attaching an example.

Example 1:

Example 2:

9. A box manufacturer wishes to cut templates from a roll of cardboard 300cm wide and 6000cm long. The dimensions of the smallest rectangle that will enclose the template are 11cm and 14.2cm. How many templates can be cut from one roll?