Math 103 Activity Your Names_____

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Date: 2 - 12- 2014

Polygons, Regular Polygons and Tilings

1. Complete the following table as appropriate:

Polygon	n = number of sides (edges)	sum of measures of interior angles in degrees	measure of a single interior angle for a **regular polygon**
triangle	3		
quadrilateral	4		
pentagon	5		
hexagon	6		
heptagon	7		
octagon	8		
nonagon	9		
decagon	10		
dodecagon	12		
icosagon	20		
“n–gon”	n		

2. Which of the **regular polygons** in the table can fit together using exactly one tile shape to surround single vertex? Answer: _____

Draw the figures to illustrate your response.

3. Explain why this is not possible for a regular pentagon.

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4. Use **regular triangles and squares with the same edge length** to surround single vertex in more than one way.

Draw the figures to illustrate the configurations you create.