Handout 4: Even Squares Go Around In Circles

1. If a parallelogram is cyclic, what other kind of quadrilateral must it be?

2. If a rhombus is cyclic, what other kind of quadrilateral must it be?

3. Consecutive angles of a cyclic quadrilateral are supplementary. Is this true or false?

4. All diagonals of a cyclic quadrilateral are diameters of the circle. Is this true or false?

5. Kites and trapezoids can be cyclic quadrilaterals. Is this true or false?

6. What is the sum of the interior angles of an octagon? If the octagon is regular, what is the measure of each individual angel?

7. How many total diagonals can you draw in a decagon?

8. How many total diagonals can you draw in a triangle?

9. What is the sum of the interior angles of a 99-gon? How many diagonals can you draw in a 99-gon?

10. What happens to the measure of a single interior angle for a regular n-gon as n approaches infinity?