

MA 202: Quiz 3
Thursday 02/01/2018

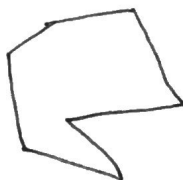
Name ANSWER KEY

Section _____

1. (2 points.) Sketch a regular pentagon and a concave heptagon.



regular pentagon

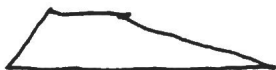


concave heptagon

2. (2 points.) Determine if the statement is *always*, *sometimes*, or *never* true. Justify your answer.

A quadrilateral has a pair of congruent angles.

Sometimes. Parallelograms have two pairs of congruent angles, while not all trapezoids do.



3. (2 points.) Determine the sum of the interior angles of an octagon and the measure of each interior angle.

The sum of interior angles is $(8-2) \cdot 180^\circ = 1080^\circ$. Since there are 8 such equal interior angles in a ^{regular} octagon, the measure of each is $\frac{1080}{8} = \frac{540}{4} = \frac{270}{2} = \boxed{135^\circ}$