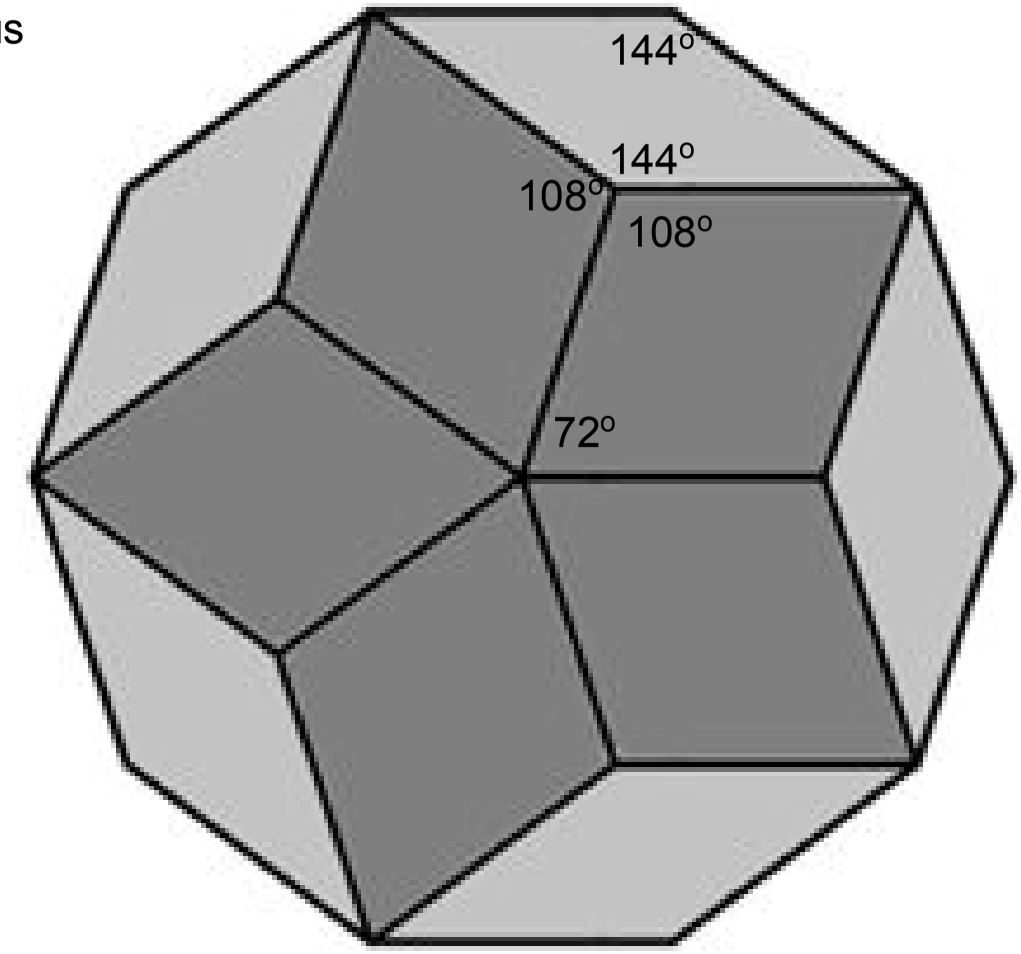
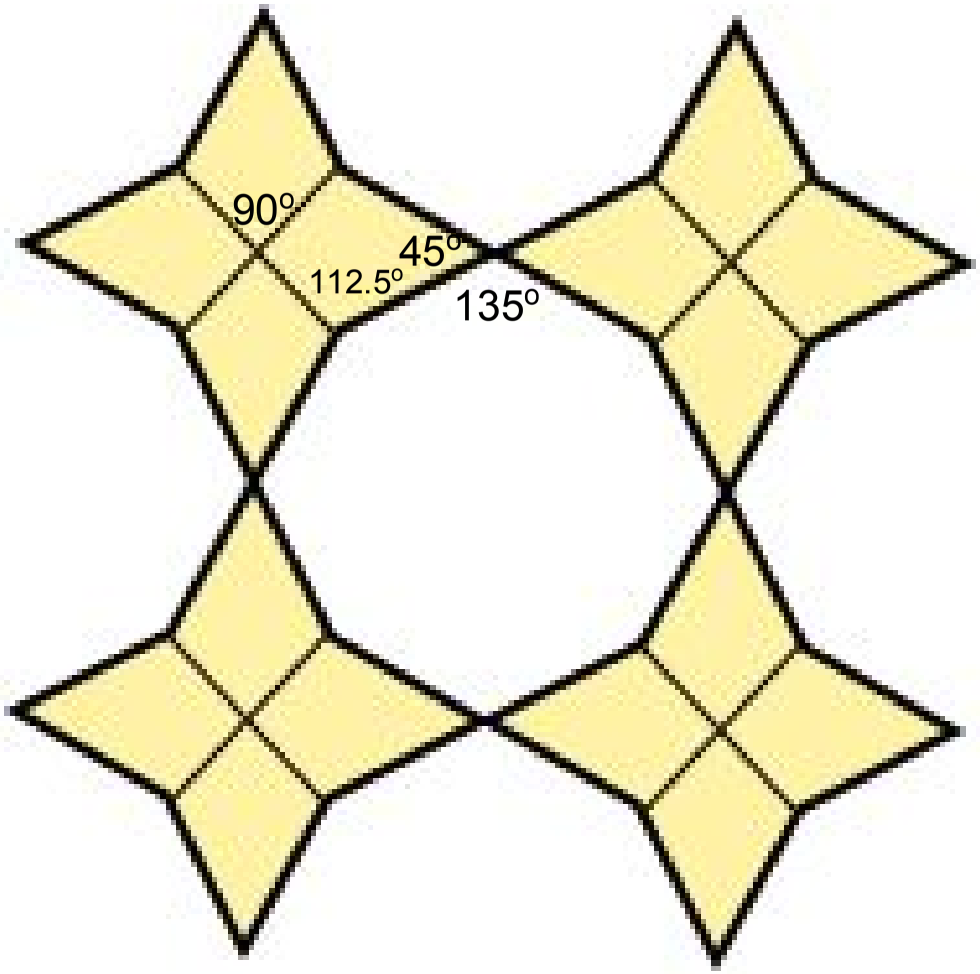
Sum of angles of 5 rhombus make 360°
So the angle is 72°



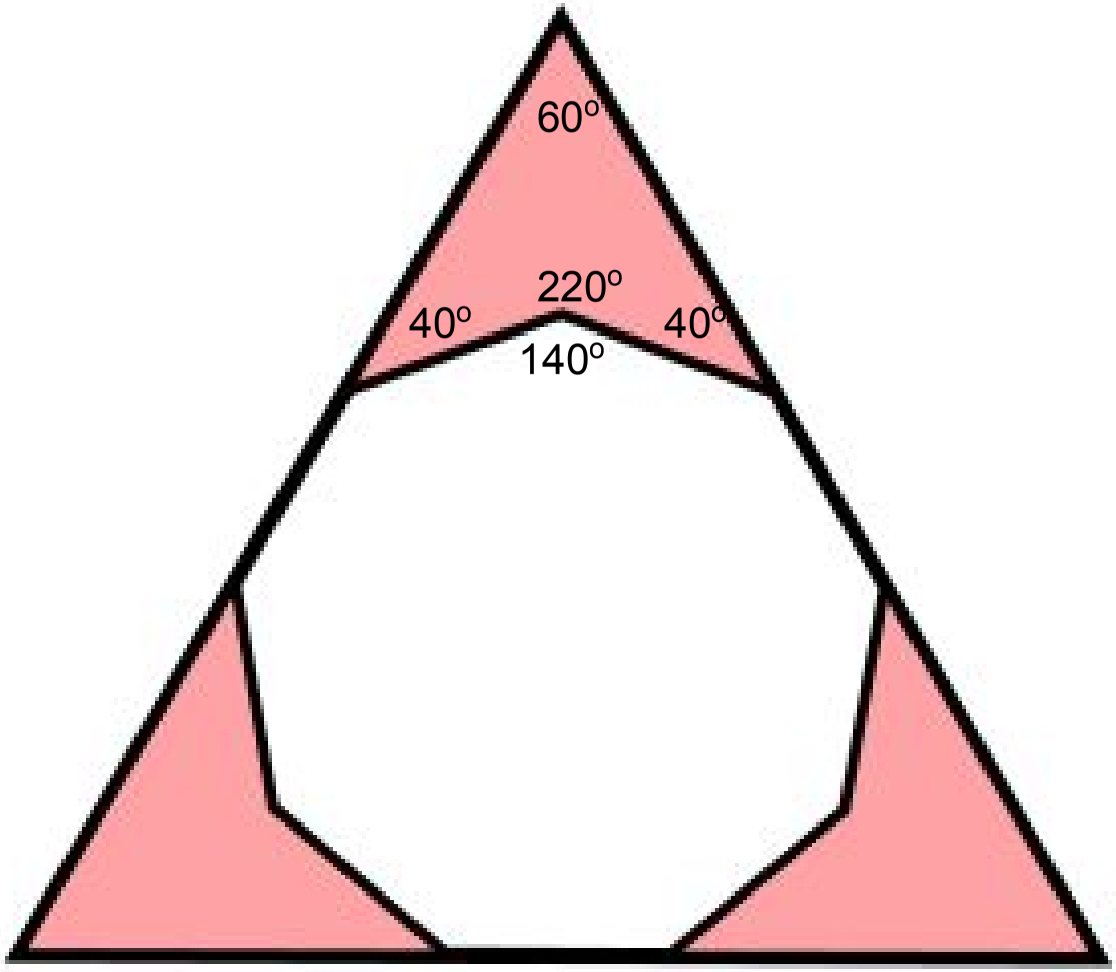
The exterior angle of octagon is
360 / 8 = 45°
The interior angle of octagon is
180 - 45 = 135°

Sum of angles of 4 kites make 360°
The angle is 90°
The another angle of the kite
= (360 - 90 - 45) / 2
= 112.5°



The exterior angle of nonagon is
360 / 9 = 40°
The interior angle of octagon is
180 - 40 = 140°

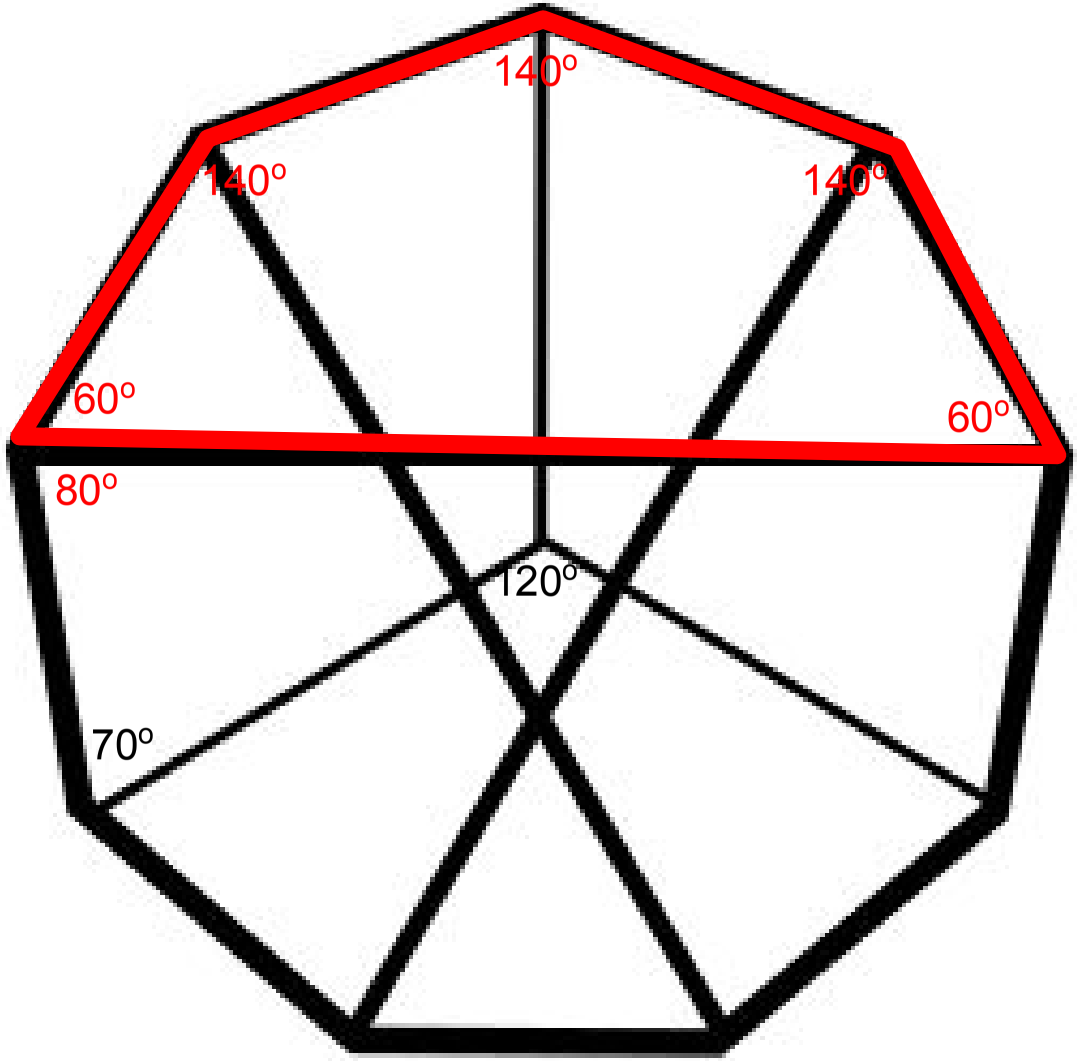
The interior angle of equilateral triangle is 60°



The exterior angle of nonagon is
360 / 9 = 40°
The interior angle of octagon is
180 - 40 = 140°

In the red pentagon, there are three 140° angles
The small angle = (540° - 3 x 140°) / 2 = 60°

All the small triangles have angles of 60° and are equilateral.



There are 18 tiles of pentagon.

Which angles can be calculated?
The pair of base angles can be calculated
= (180^o - (360^o / 18)) / 2
= 80^o

If we assume that the tiles are symmetrical, there are two pairs of matching angles and one other angle. What is the range of possible sizes of that "lonely" angle?

The smallest angle is when it becomes a triangle i.e. 20^o
The biggest angle is when it becomes a trapezoid i.e. 180^o
The range is 20^o > angle > 180^o