

Interior Angles of Polygons

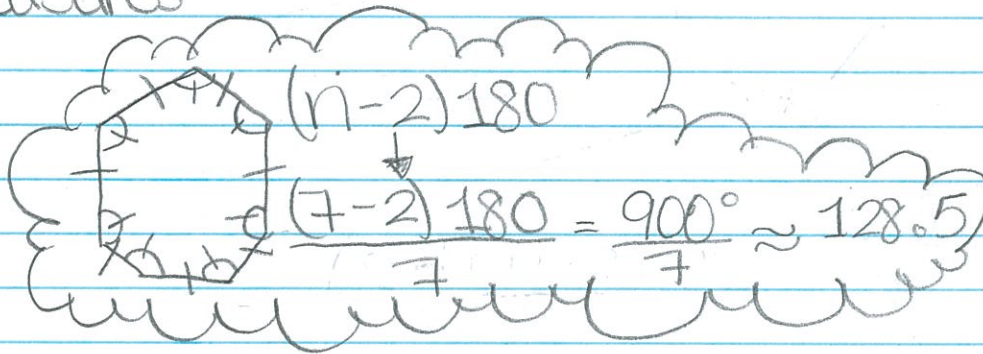
Quadrilateral Sum Conjecture ~ The sum of the interior angle measures for any quadrilateral is 360°

Polygon sum conjecture ~ The sum of the interior angle for an n -gon is $(n-2)180$

Equilateral polygon ~ all sides are equal measures

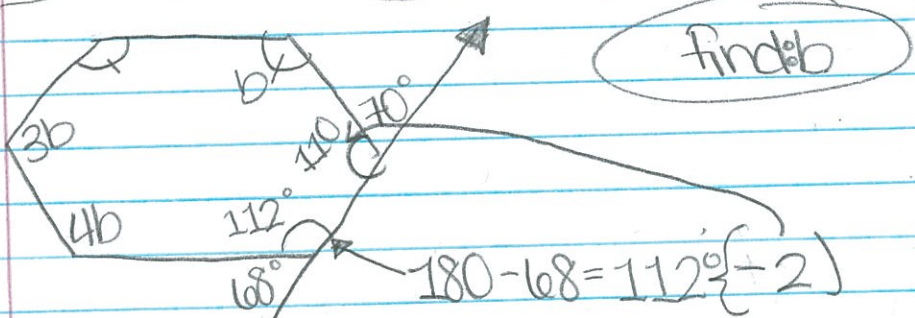
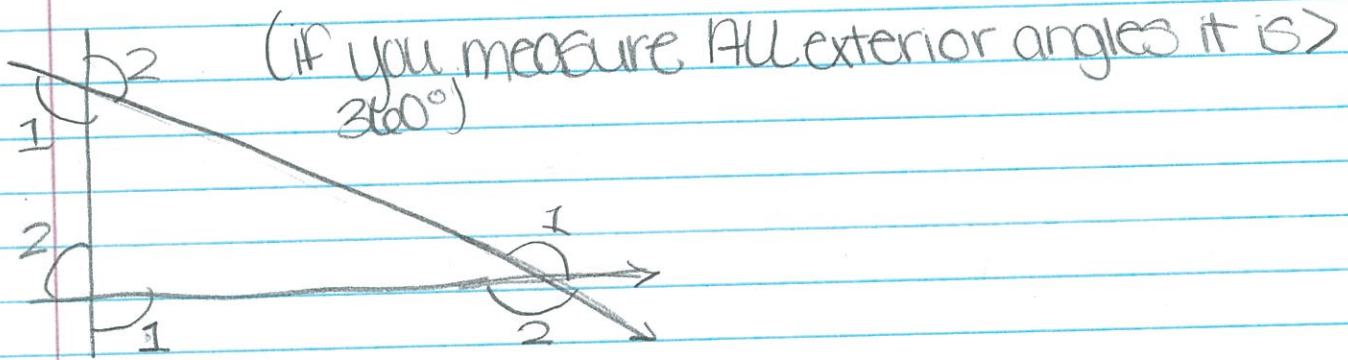
Equiangular polygon ~ all angles have equal measures

Regular polygon ~ all sides & angles have equal measures



Exterior Angles of Polygons

Exterior Angle Sum Conjecture ~ The sum of one set of exterior angle measures for any polygon is 360°



$$180 - 68 = 112 \text{ (exterior)}$$

$$b + b + 3b + 4b + 112 + 110 = 1080^\circ$$

$$\underbrace{2b + 3b + 4b}_{222} + \underbrace{112 + 110}_{222} = 1080^\circ$$

$$9b + 222 = 1,080^\circ$$

$$\underline{- 222}$$

$$9b = 858 \quad 858$$

$$b = \frac{858}{9}$$

