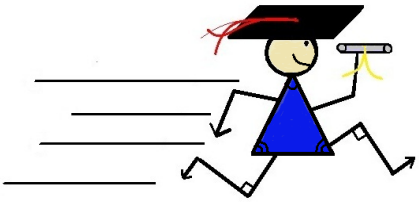
POLYGON SMART CARD

Volume 7, Chapter 4



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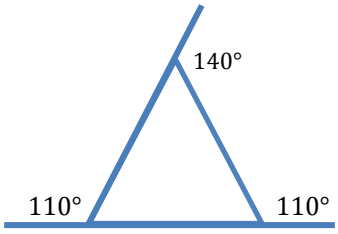
1. The sum of the measures of the interior angles of a polygon having n sides is $180(n-2)$.

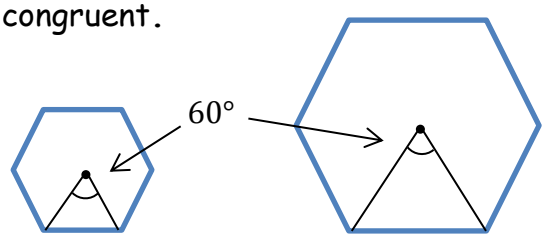
$$\mathbf{180°(6\ sides - 2) = 720°}$$

2. The sum of the measures of the exterior angles of any polygon (one exterior angle at a vertex) is 360.



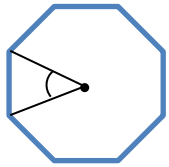
$$\mathbf{110 + 110 + 140 = 360}$$

3. The central angles of regular polygons are congruent.

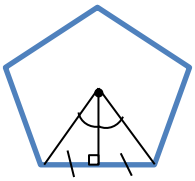


4. The measure of the central angle of a regular polygon is equal to $360°$ divided by the number of sides on the polygon.

$$\mathbf{360 \div 8 = 40°}$$



5. An apothem of a regular polygon is the perpendicular bisector of the side to which it is drawn.



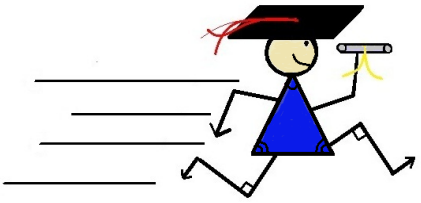
6. An apothem bisects the central angle determined by the side to which it is drawn.

7. The radii of a regular polygon bisect the interior angles of the regular polygon.

8. The area of a regular polygon is equal to one half the product of the length of an apothem and its perimeter.

$$\boldsymbol{Area\ of\ a\ Regular\ Polygon = \frac{1}{2}\text{APOTHEM X PERIMETER}}$$

DEFINITIONS SMART CARD



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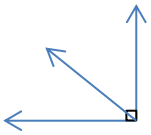
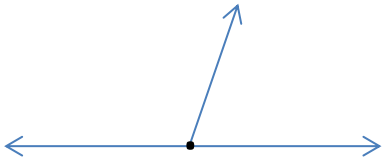
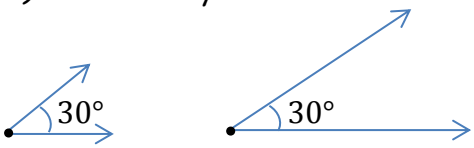
1. *Complementary angles are two angles whose measures add up to* $90°$.



2. *Supplementary angles are two angles whose measures add up to* $180°$.

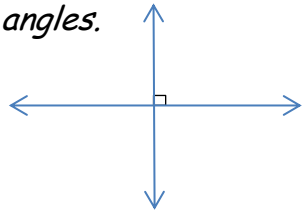


3. *Angles (or segments) that are equal in measure are congruent.*

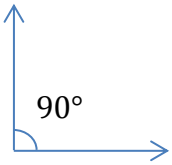


4. *Congruent angles (or segments) are equal in measure.*

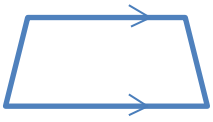
5. *Perpendicular lines are two lines that intersect at 90 degree angles.*



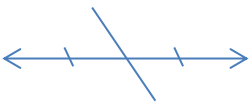
6. *A right angle is an angle whose measure is 90 degrees.*



7. *A trapezoid is a quadrilateral that has exactly one pair of parallel sides.*



8. *A Bisector cuts a line segment into two equal segments.*



9. *An Angle Bisector cuts an angle into two congruent angles.*