



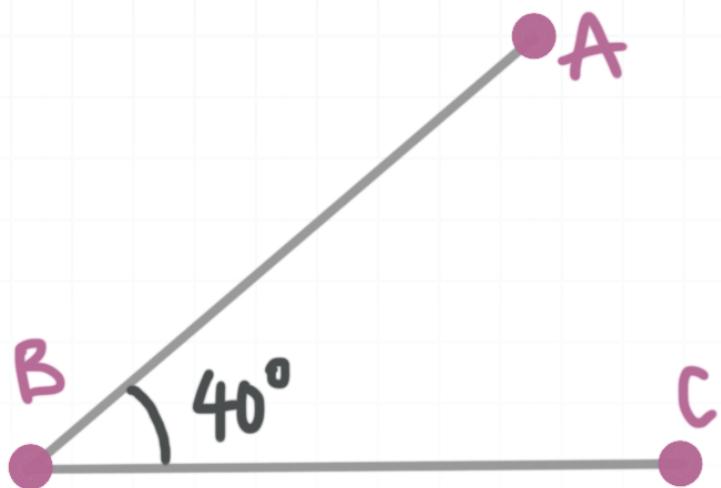
Geometry Workbook

Angles

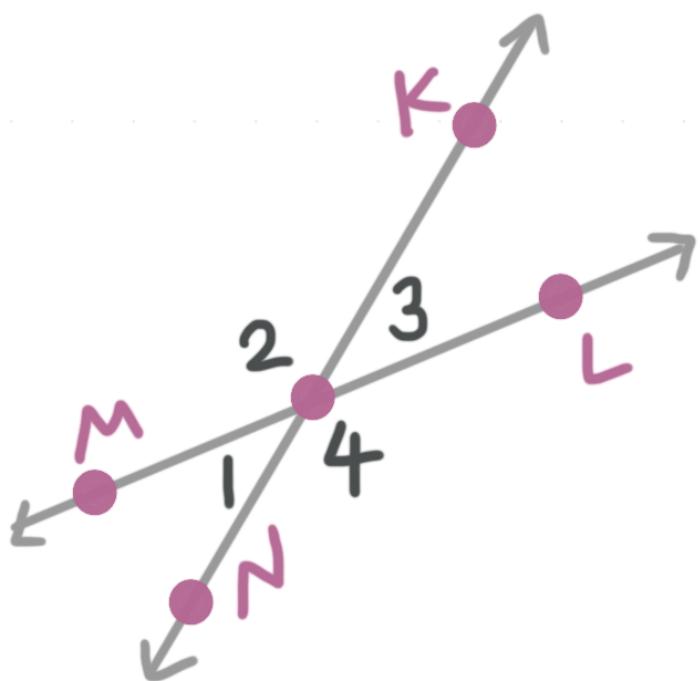
krista king
MATH

MEASURES OF ANGLES

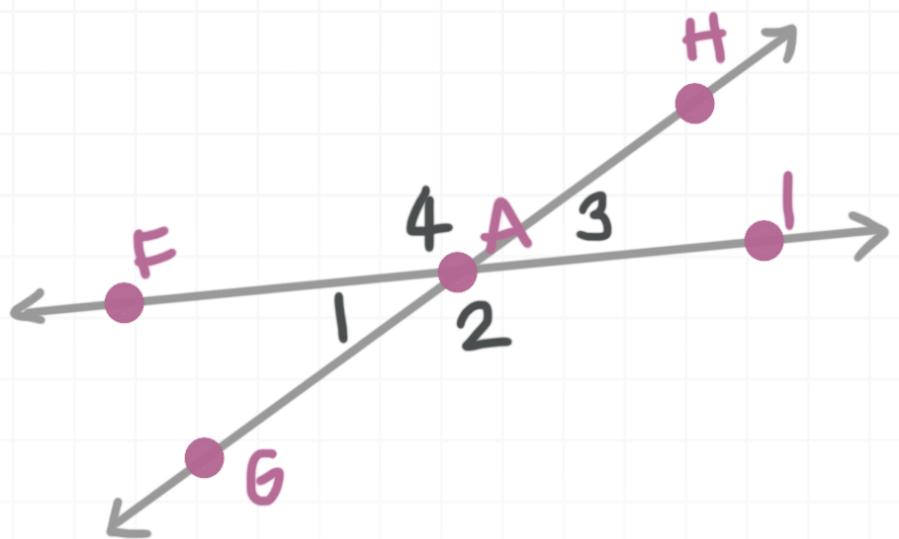
- 1. Determine whether $\angle ABC$ is obtuse, acute, or right. Then find its supplement.



- 2. $m\angle 1 = 35$. Find $m\angle 2$, $m\angle 3$, and $m\angle 4$.



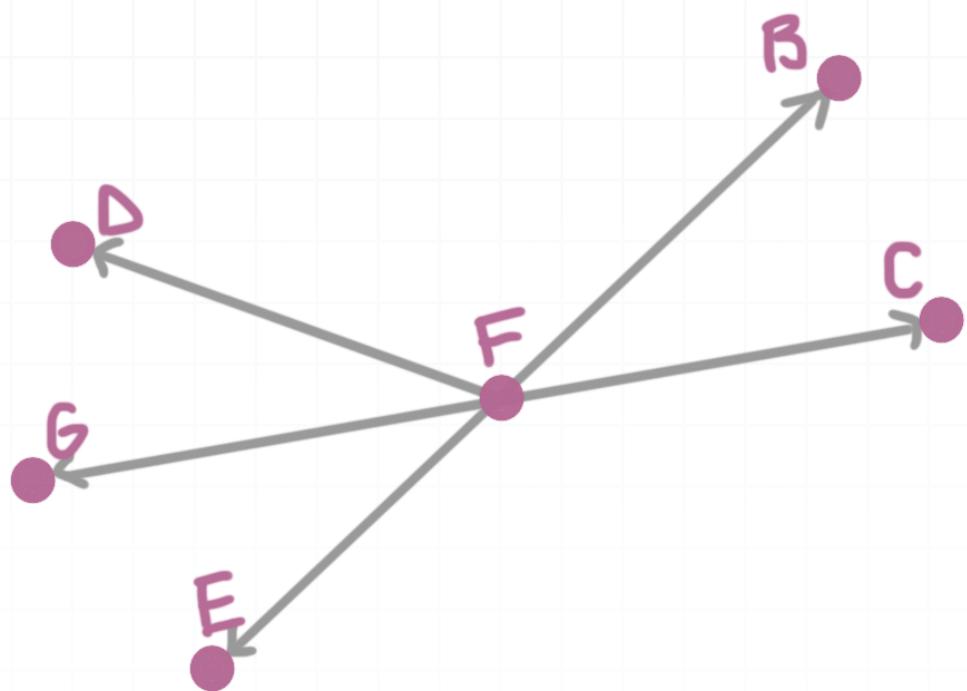
- 3. Find x , y , and z if $m\angle 1 = 3x - 2$, $m\angle 2 = 2y$, $m\angle 3 = 2x + 8$, and $m\angle 4 = 4z$.



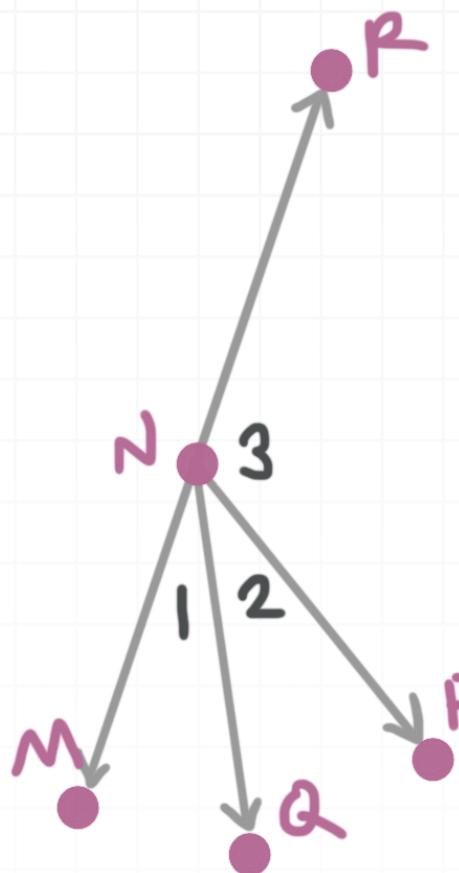
- 4. $\angle 5$ and $\angle 6$ are complementary angles. $m\angle 5 = 3x - 6$ and $m\angle 6 = 2x - 14$. Find the measures of $\angle 5$ and $\angle 6$.

ADJACENT AND NONADJACENT ANGLES

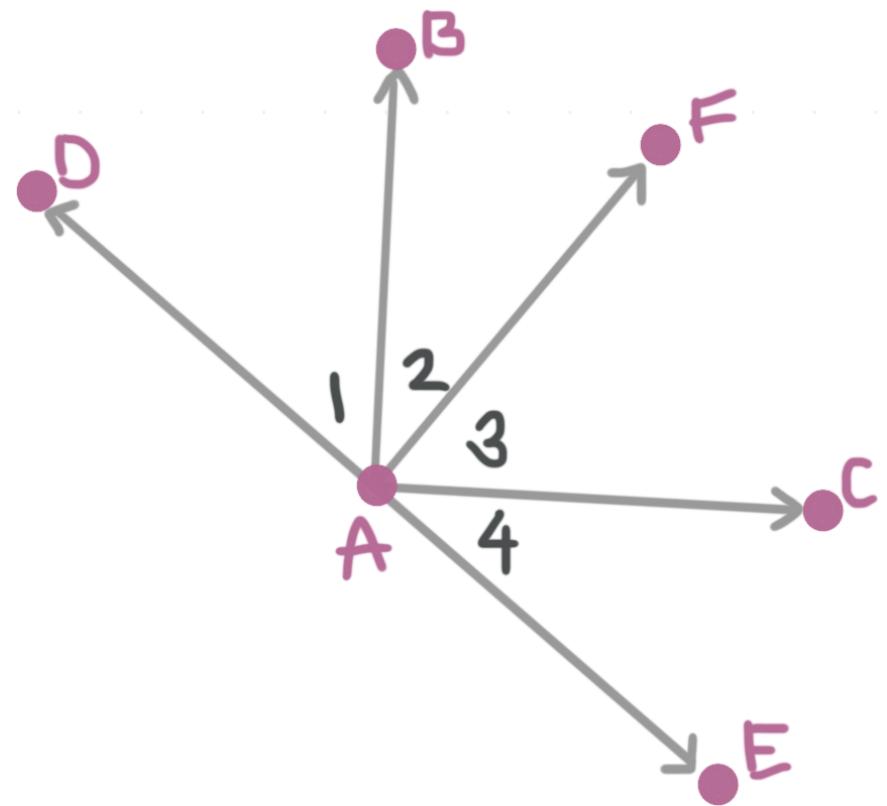
- 1. Name the angle adjacent to $\angle EFG$.



- 2. $m\angle 1 = 3x - 10$, $m\angle 2 = 2x - 20$, and $m\angle MNP = 60$. Find the value of x and $m\angle 1$, $m\angle 2$, and $m\angle 3$, given that \overline{NR} and \overline{NM} are opposite rays.



- 3. $m\angle 2 = 42$, $\angle 3 \cong \angle 4$, $\angle FAE$ is a right angle, and $\angle DAE$ is a straight angle.
Find $m\angle 1$, $m\angle 3$, and $m\angle 4$.

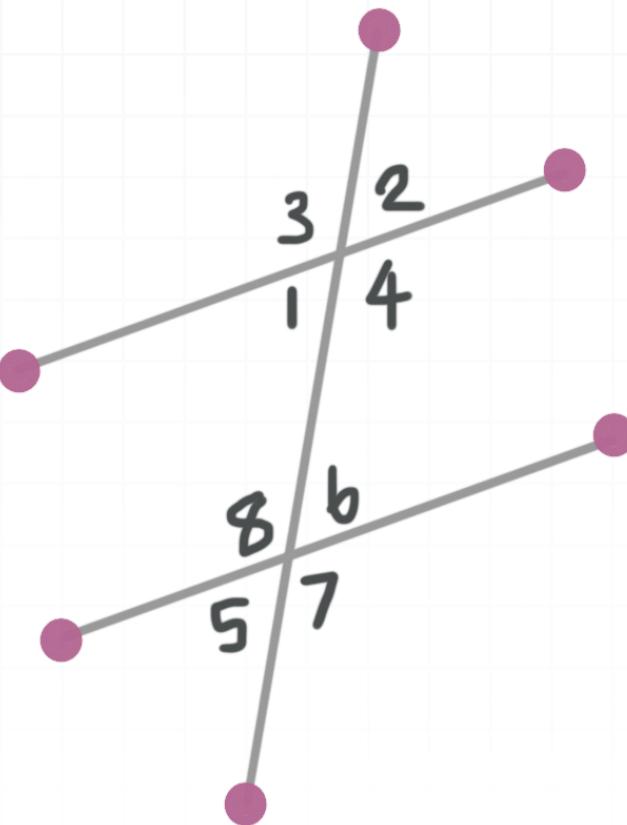


- 4. $\angle JVC$ and $\angle EVC$ are adjacent and complementary. Further, suppose $m\angle JVC = 2m\angle EVC$. Sketch a diagram of this situation and find the measure of each angle.

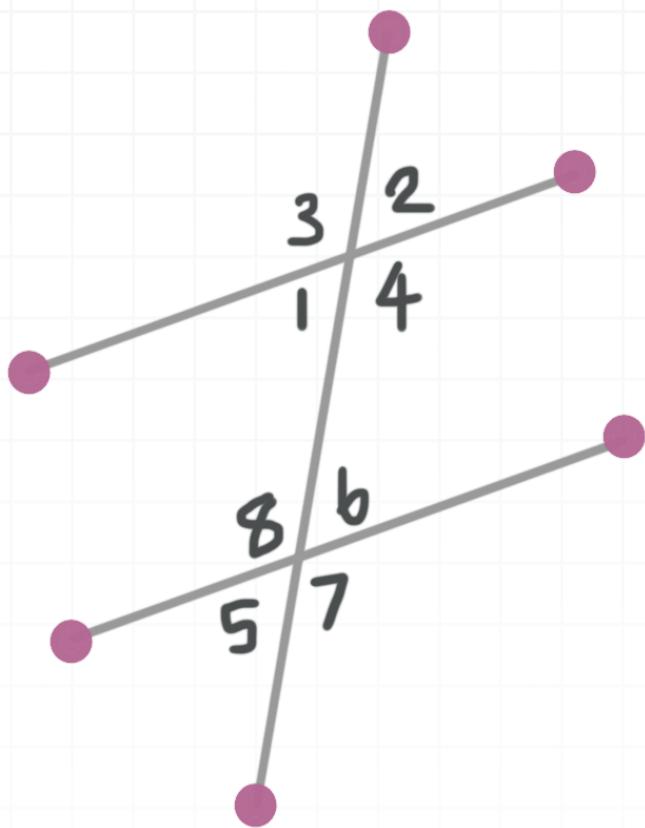


ANGLES OF TRANSVERSALS

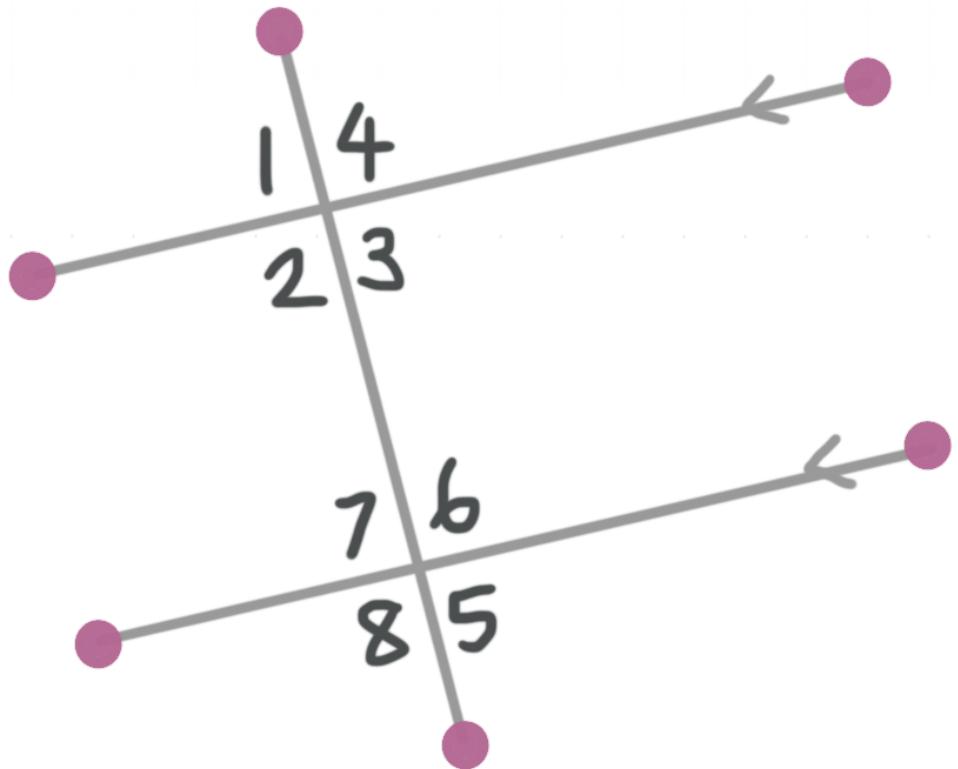
- 1. Name a pair of corresponding angles.



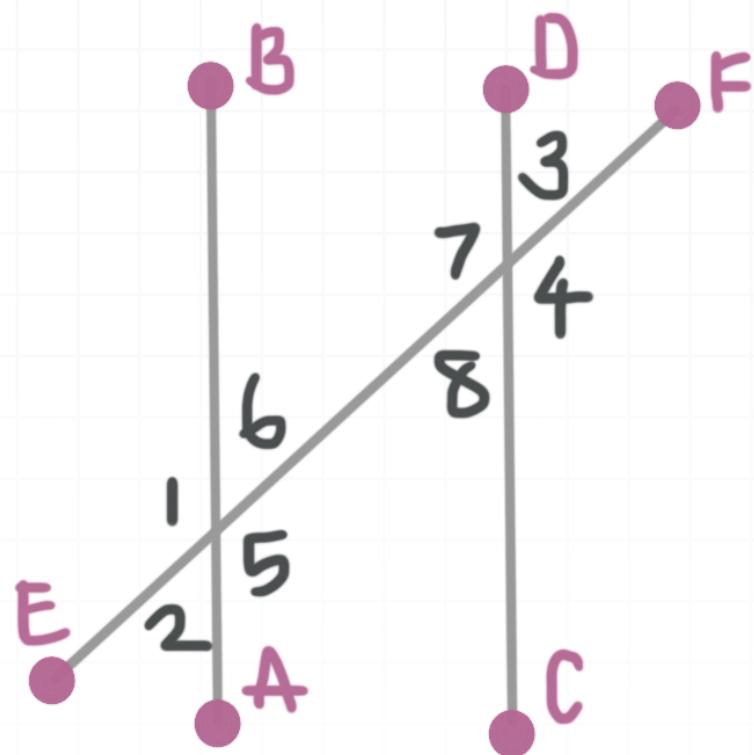
- 2. Find $m\angle 2$, $m\angle 6$, and $m\angle 5$ if $m\angle 3 = 105$.



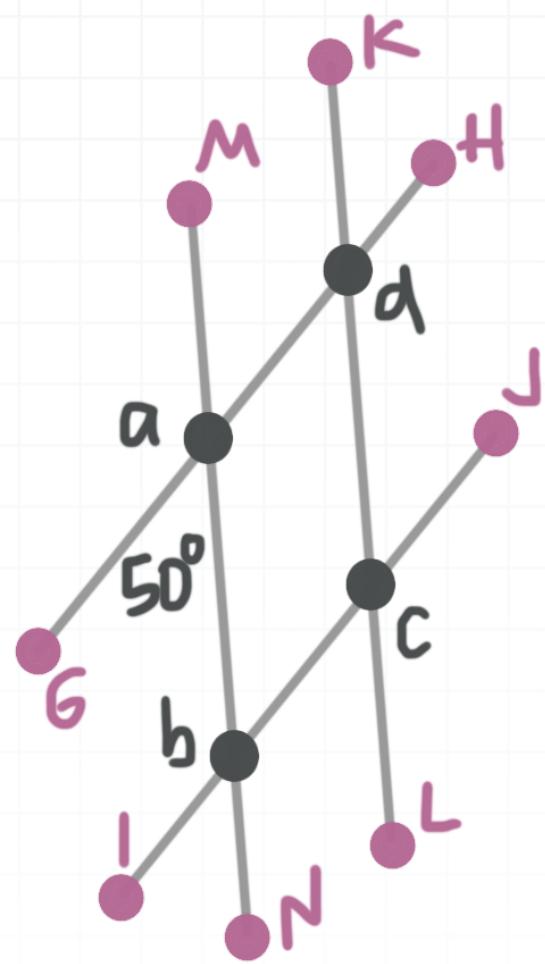
- 3. Find x and $m\angle 3$ if $m\angle 2 = 5x + 2$ and $m\angle 7 = 3x + 14$.



- 4. Find the values of x and y if \overline{AB} and \overline{DC} are parallel lines, and if $m\angle 1 = 2x + y$, $m\angle 2 = 28$, and $m\angle 3 = x + 10$.

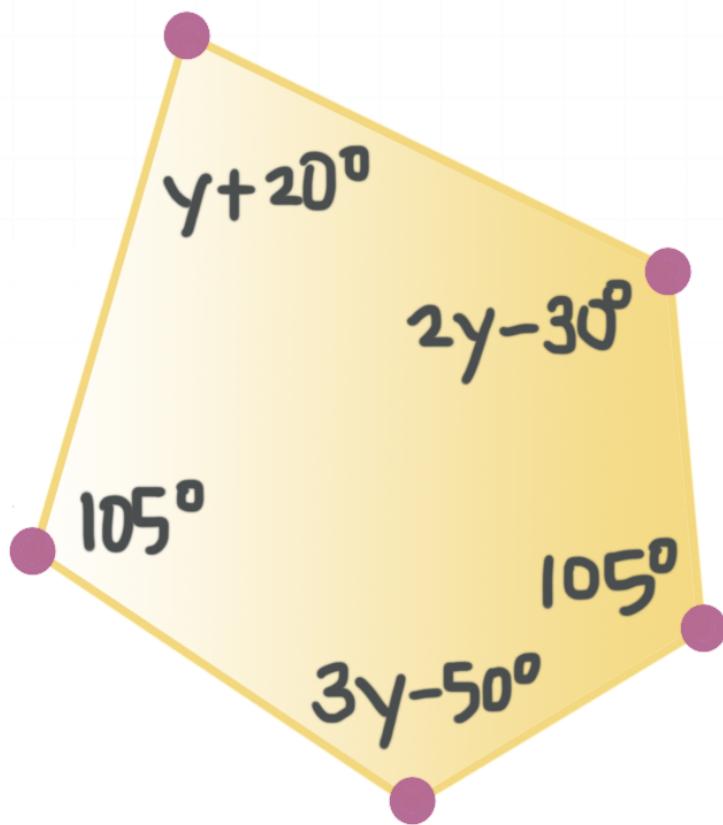


- 5. \overline{MN} and \overline{KL} are parallel. \overline{GH} and \overline{IJ} are parallel. Find the values of a , b , c , and d .



INTERIOR ANGLES OF POLYGONS

- 1. Find the sum of the interior angles of a hexagon.
- 2. Find the measure of each interior angle of a regular 15-gon.
- 3. Find the value of y . Then determine whether this is a regular polygon.



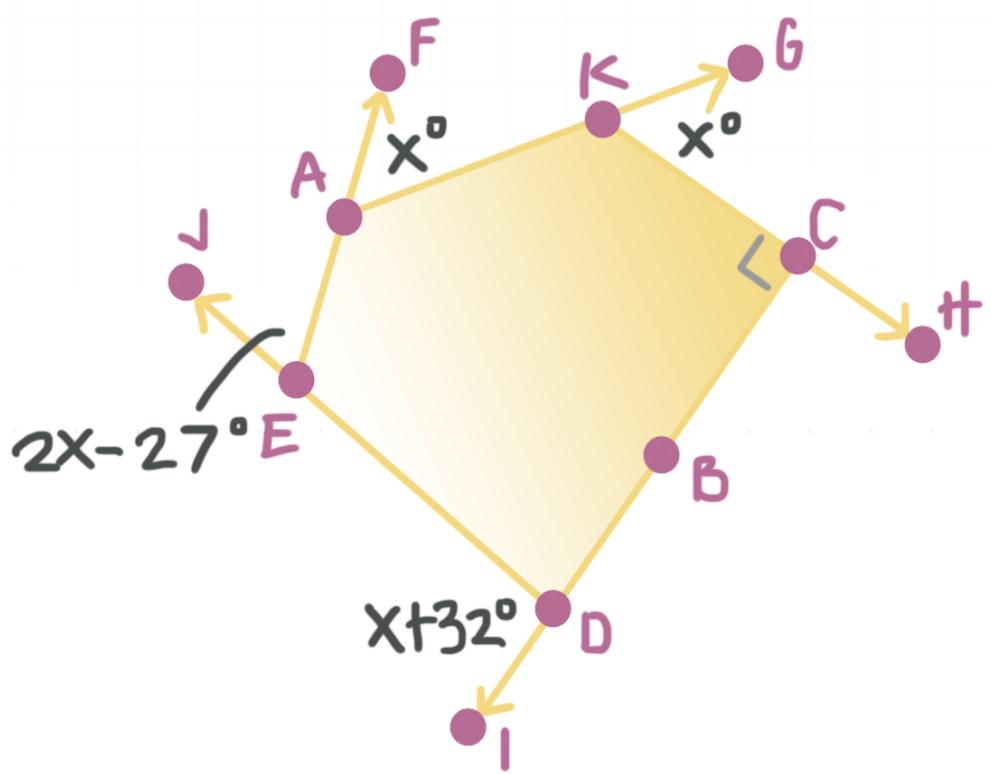
- 4. Each interior angle measure of a regular polygon is 160° . Find the number of sides of this polygon.

EXTERIOR ANGLES OF POLYGONS

- 1. Find the sum of the exterior angles of a decagon.

- 2. Each exterior angle of a regular polygon has measure of 30° . Find the number of sides of this polygon.

- 3. Find the value of x .



- 4. Find $m\angle 1$, $m\angle 2$, and $m\angle 3$ based on the figure.

