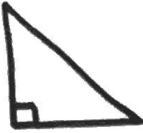

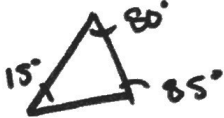





Classifying triangles by ANGLES

Term	Definition	Example
Right Triangle	A triangle w/ <u>one</u> right \angle . (90°)	
Obtuse Triangle	A Δ w/ <u>one</u> angle $>$ than 90° .	
Acute Acute Triangle	A Δ with w/ all 3 angles $<$ 90° .	


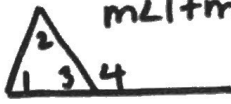

Classifying triangles by SIDES

Term	Definition	Example
Isosceles Triangle (at least 2 sides \cong)	A Δ w/ 2 \cong sides. (\angle 's angles)	 Base angles also \cong .
Scalene Triangle	Δ w/ <u>NO</u> \cong sides/angles	
Equilateral Triangle (Equiangular)	Δ with all \cong sides & \angle 's	

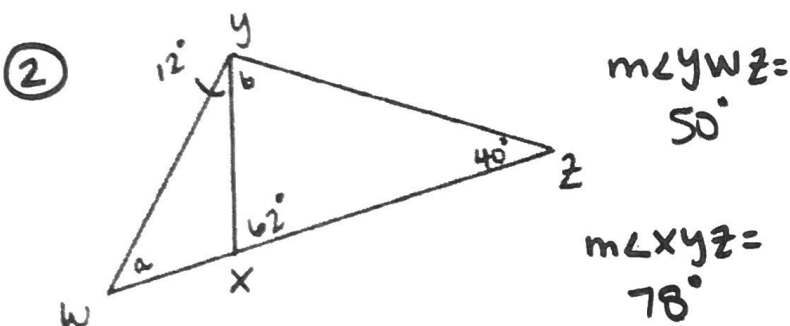
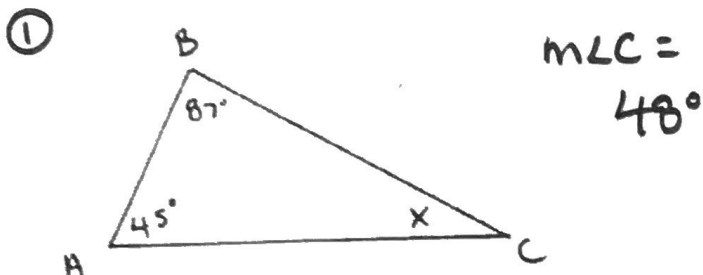
* Regular Polygon: Any shape where sides & \angle 's are \cong .

- Square
- Hexagon
- Eq. Δ
- ect
- Pentagon

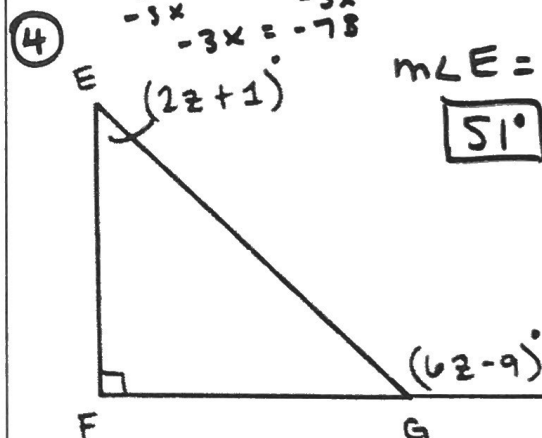
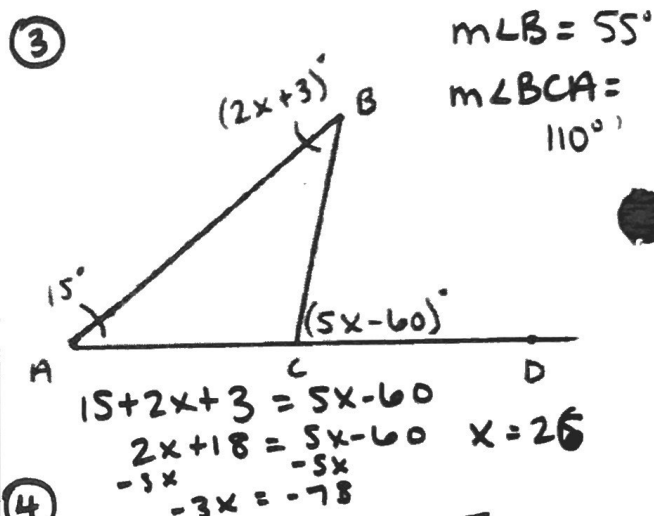
Triangle Theorems

Term	Definition	Example
Triangle Sum Theorem	The sum of the angles of a Δ equal 180° .	 $m\angle 1 + m\angle 2 + m\angle 3 = 180^\circ$
Exterior Angles Theorem	The meas. of an ext. \angle of a Δ is = to the sum of remote int. \angle 's.	 $m\angle 1 + m\angle 2 = m\angle 4$
Third Angles Theorem	If 2 \angle 's in one Δ are \cong to 2 \angle 's in another Δ , then 3rd \angle 's are \cong .	 $m\angle x = m\angle y$

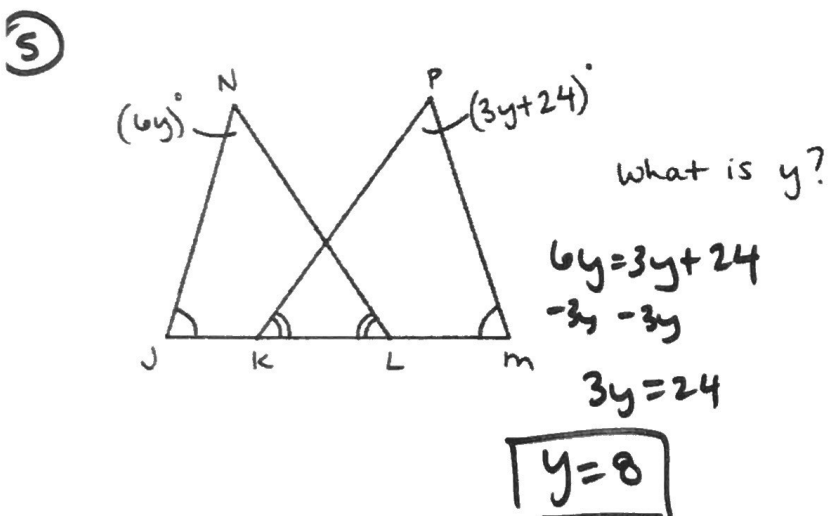
Triangle Sum Theorem Examples:



Exterior Angle Theorem Examples:



Third Angles Theorem Examples:



$$90 + 2z + 1 = 6z - 9$$

$$91 + 2z = 6z - 9$$

$$\begin{array}{r} -2z \\ -2z \end{array}$$

$$91 = 4z - 9$$

$$\begin{array}{r} +9 \\ +9 \end{array} \quad z = 25$$