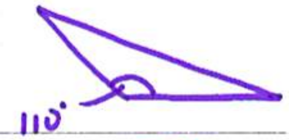
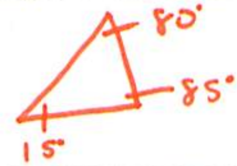
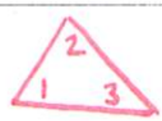
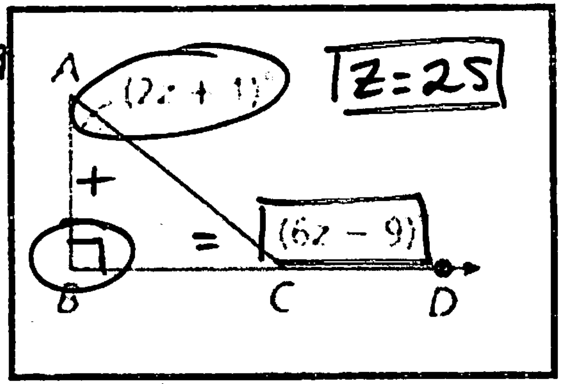
Winston

Term	Definition	Example
Right Triangle	Δ with one right angle. (90°)	
Obtuse Triangle	Δ with one angle greater than 90°.	
Acute Triangle	All three ∠'s of the Δ are less than 90°.	
Isosceles Triangle	Δ with 2 ≅ sides.	
Scalene Triangle	Δ with <u>no</u> ≅ sides.	
Equilateral Triangle (Equiangular)	Δ with all ≅ sides & ∠'s.	
Regular polygon	Any shape where sides & angles are ≅.	
Triangle Sum Theorem	The sum of the interior ∠'s of a Δ equal 180°.	 $m\angle 1 + m\angle 2 + m\angle 3 = 180°$
Exterior ∠'s Theorem.	The measure of an exterior ∠ of a Δ is equal to sum of <u>remote interior</u> ∠'s.	$m\angle 1 + m\angle 2 = m\angle 4$ 
Third ∠'s Theorem	If 2 ∠'s in one Δ are ≅ to 2 ∠'s in another Δ, then the 3rd ∠'s are ≅.	 $m\angle x = m\angle y$

Solve for the missing variable.

*Exterior ∠'s Theorem



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

$2z+91=6z-9$

$+9 \quad +9$

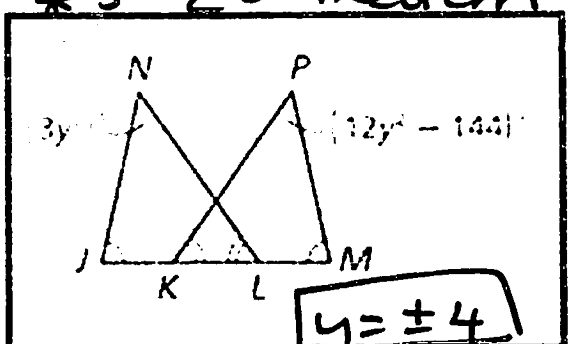
$2z+100=6z$

$-2z \quad -2z$

$100=4z$

$\boxed{z=25}$

*3rd ∠'s Theorem



$3y^2=12y^2-144$

$+144 \quad +144$

$3y^2+144=12y^2$

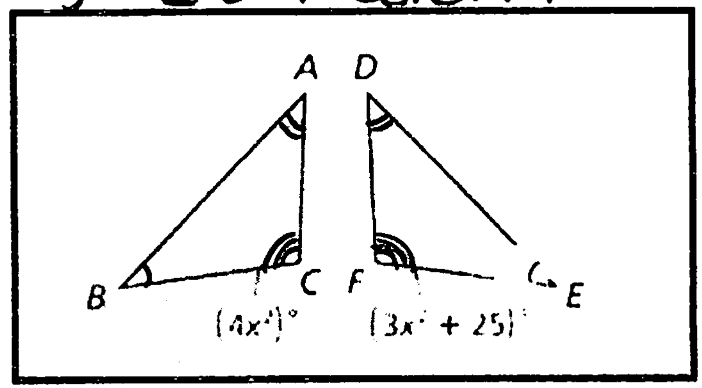
$-3y^2 \quad -3y^2$

$\frac{144}{9}=\frac{9y^2}{9}$

$16=y^2$

$\boxed{y=\pm 4}$

3rd ∠'s Theorem



*Ext ∠'s Th.