

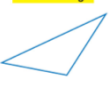




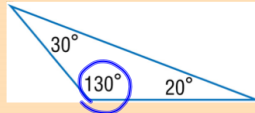
**KeyConcept** Classifications of Triangles by Angles

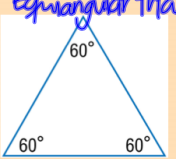
<b>acute triangle</b>	<b>equiangular triangle</b>	<b>obtuse triangle</b>	<b>right triangle</b>
			
3 acute angles	3 congruent acute angles	1 obtuse angle	1 right angle




Classify each triangle as acute, obtuse, right, or equiangular.

*look @ angle measures*

A.    
*obtuse triangle*

B.    
*Equiangular triangle*

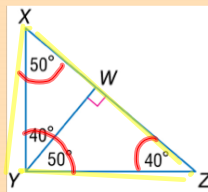



THINK - PAIR - SHARE




*name*  
 Classify  $\triangle XYZ$  as acute, equiangular, obtuse, or right. Explain your reasoning.


$\angle X = 50^\circ$   
 $\angle Z = 40^\circ$   
 $\angle Y = 40^\circ + 50^\circ = 90^\circ$

*Right triangle b/c there is a right angle.*

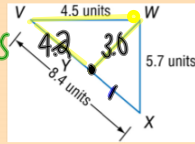



**KeyConcept** Classifications of Triangles by Sides

<b>equilateral triangle</b>	<b>isosceles triangle</b>	<b>scalene triangle</b>
		
3 congruent sides	at least 2 congruent sides	no congruent sides



If point Y is the midpoint of  $\overline{VX}$ , and  $WY = 3.0$  units, classify  $\triangle VWY$  as equilateral, isosceles, or scalene. Explain your reasoning.



$VY \cong YX$  (def. of midpoint)

$VY + YX = VX$  (seg. add post.)

$VY + VY = VX$  (substitution)

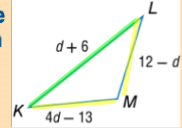
$2VY = VX$  (CLT)

$2VY = 8.4$  (substitution)

$VY = 4.2$  (D.P.E)

Scalene b/c no sides are congruent.

**ALGEBRA** Find the measures of the sides of isosceles triangle  $KLM$  with base  $\overline{KL}$ .



First, we need to solve for d.

$KM \cong LM$

$4d - 13 = 12 - d$

$5d = 25$

$d = 5$

$KL = d + 6$ $= 5 + 6$ <b><math>KL = 11</math></b>	$LM = 12 - d$ $= 12 - 5$ <b><math>LM = 7</math></b>	$KM = 4d - 13$ $= 4(5) - 13$ $= 20 - 13$ <b><math>KM = 7</math></b>
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