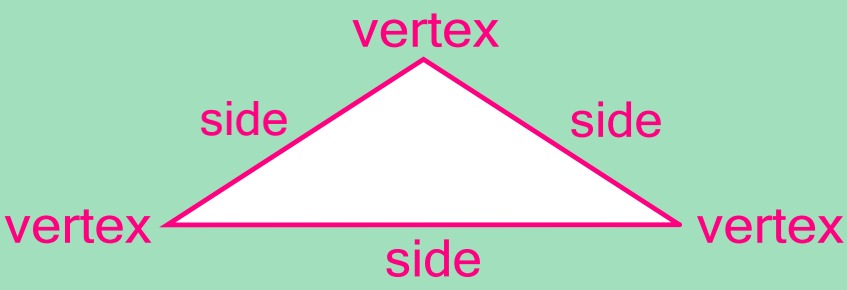
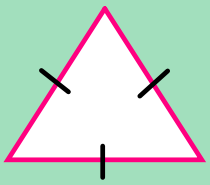
4.1 Classifying Triangles



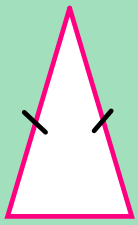
triangle: formed by 3 segments joining 3 noncollinear points

Classifying a triangle by its sides

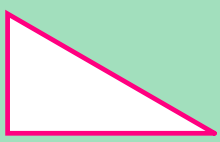
equilateral triangle
3 congruent sides



isosceles triangle
2 congruent sides

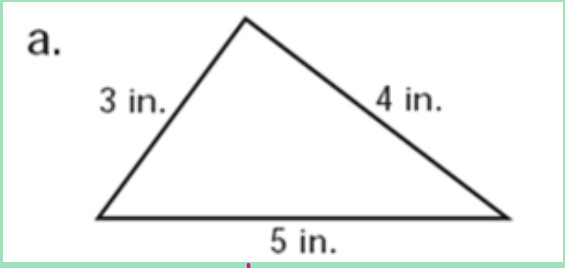


scalene triangle
no congruent sides



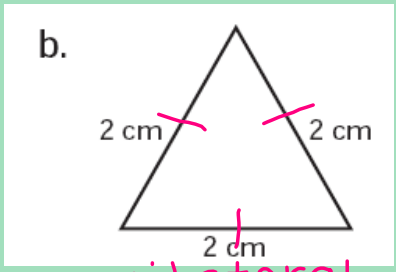
Example: Classify each triangle by its sides.

a.



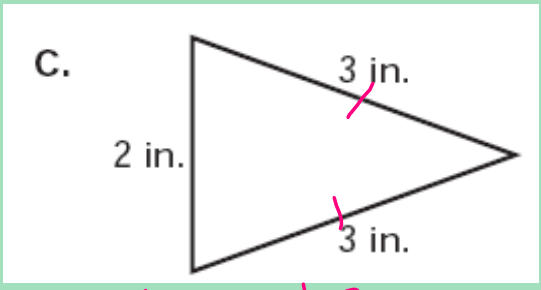
scalene

b.



equilateral

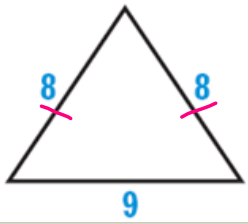
c.



isosceles

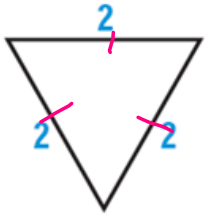
Classify each triangle by its sides.

1.



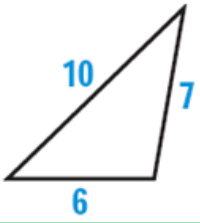
isosceles

2.



equilateral

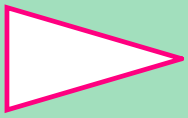
3.



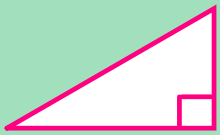
Scalene

Classifying a triangle by its angles

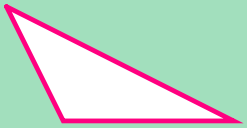
acute triangle
3 acute angles



right triangle
1 right angle



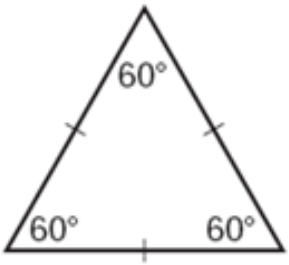
obtuse triangle
1 obtuse angle



equiangular triangle
all angles congruent

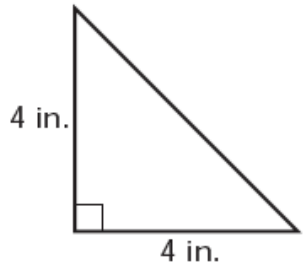
Example: Classify each triangle by its sides and angles.

a.



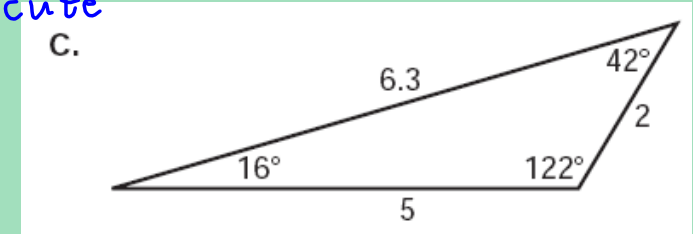
equilateral
equiangular
acute

b.



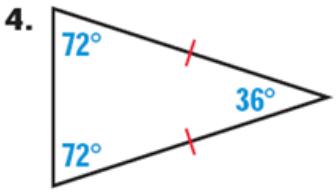
right
isosceles

c.

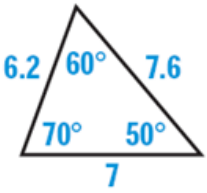


obtuse
scalene

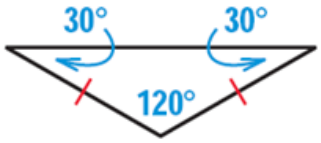
Classify each triangle by its sides and angles.

4. 

isosceles
acute

5. 

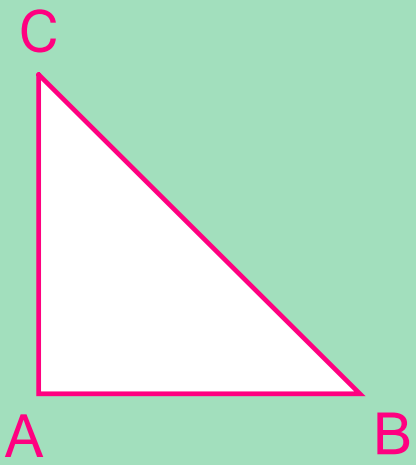
Scalene
acute

6. 

isosceles
obtuse

Opposite Sides

The side across from an angle is the opposite side.

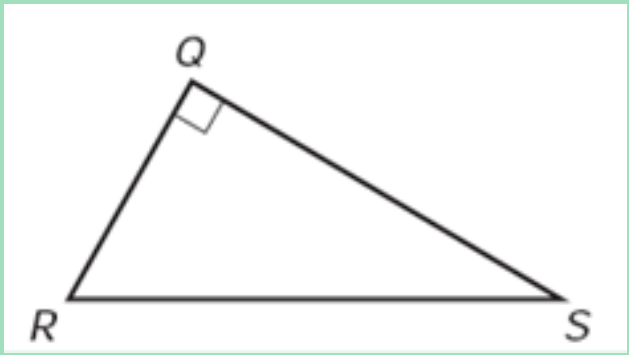


$\overline{BC}$ is opposite $\angle$ A

$\overline{CA}$ is opposite $\angle$ B

$\overline{AB}$ is opposite $\angle$ C

Name the side that is opposite the angle.



$\angle R$	$\overline{QS}$
$\angle Q$	$\overline{RS}$
$\angle S$	$\overline{QR}$