



Triangle classification

Triangles can be classified
according to their
SIDES or their **ANGLES**

Classification according to...

- SIDES

Depending on the length of the sides of the triangle.

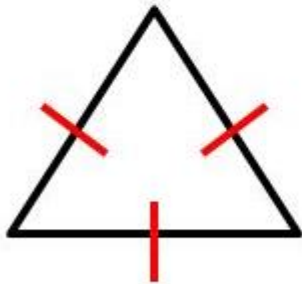
- EQUILATERAL
- ISOSCELES
- SCALENE

- ANGLES

Depending of the type of angles of the triangle.

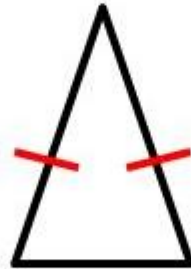
- RIGHT TRIANGLE
- OBTUSE TRIANGLE
- ACUTE TRIANGLE

Classification of triangles by SIDES



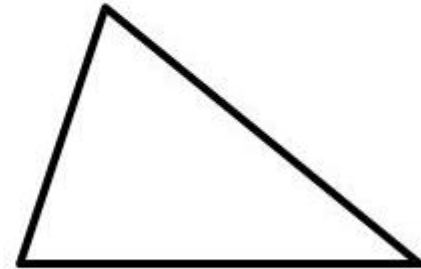
Equilateral
triangle,

3 congruent
sides.



Isosceles
triangle,

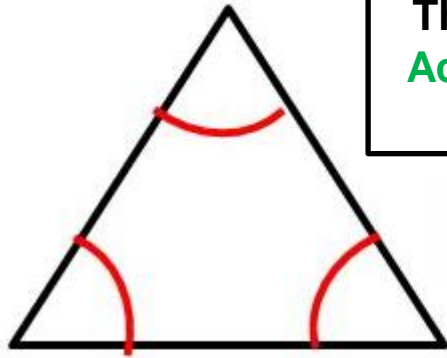
at least 2
congruent
sides



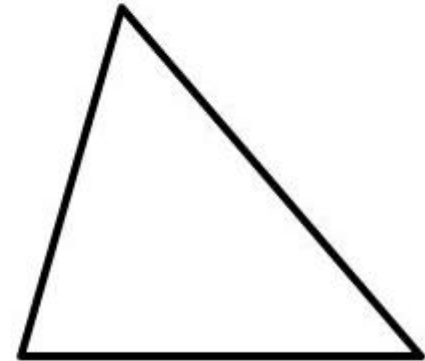
Scalene
triangle,

no
congruent
sides.

Classification of triangles by ANGLES

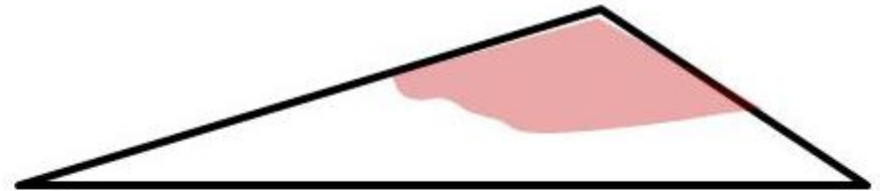
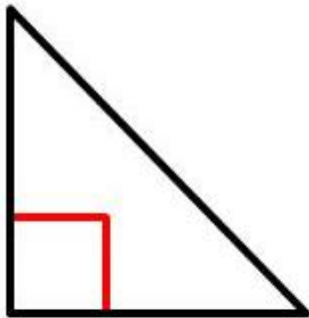


This is a special case of **Acute triangle** with three congruent angles



Equiangular Triangle;
3 congruent angles

Acute Triangle;
3 acute angles

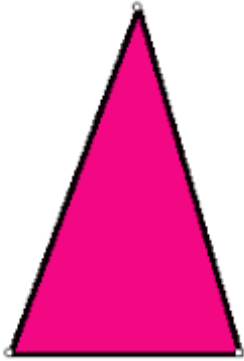


Right triangle;
1 right angle

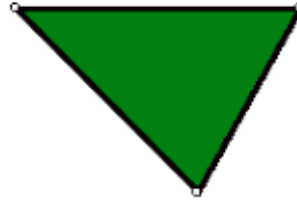
Obtuse triangle;
1 obtuse angle

So, every triangle receives 2 names.

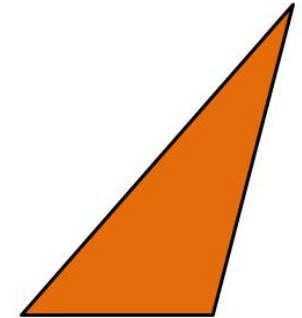
Let 's see some examples.



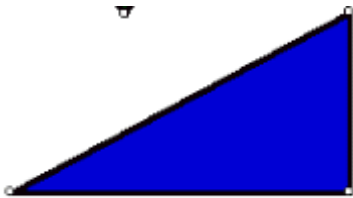
ISOSCELES and ACUTE



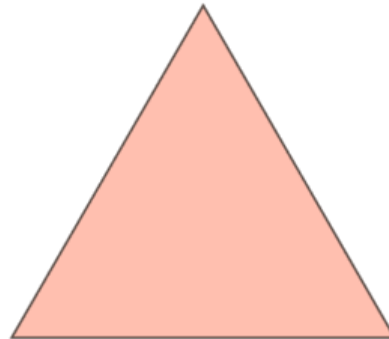
SCALENE and ACUTE



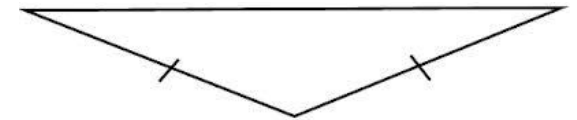
SCALENE and OBTUSE



SCALENE and RIGHT



EQUILATERAL and ACUTE
(EQUIANGULAR)

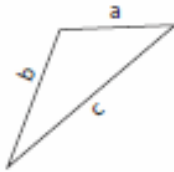


ISOSCELES and OBTUSE



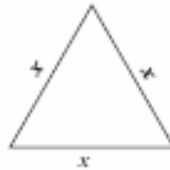
Look at the triangles and classify them according to sides and angles

1)

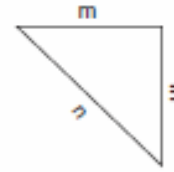


Scalene - obtuse

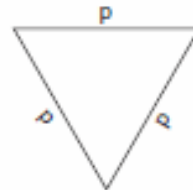
2)



3)



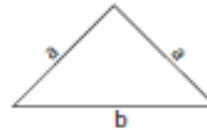
4)



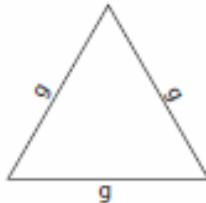
5)



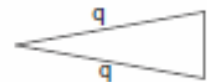
6)



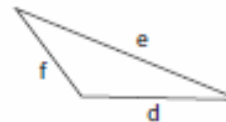
7)



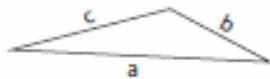
8)



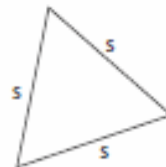
9)



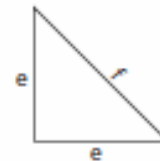
10)



11)



12)



Classify ALL the triangles, but copy only 5 in the folder. Try to choose 5 different types of triangles.



**Think about it and EXPLAIN why or why not !
Write your answers in your folder.**

In ANY triangle, is it possible to have...

- 2 obtuse angles?
- 1 obtuse, 1 right and 1 acute angle?
- 3 acute angles?
- 2 acute and 1 obtuse?



Match the words with their definition

TRIANGLE	The point where the three bisector angles of a triangle meet.
CONGRUENT	A triangle that has an angle greater than 90°
EQUILATERAL TRIANGLE	An angle which measures 90°
OBTUSE TRIANGLE	The ray which divides an angle in two congruent angles
INCIRCLE	A triangle that has three congruent sides
BISECTOR ANGLE	The largest circle that fits the inside of a triangle
INCENTER	A polygon with three sides
RIGHT ANGLE	Which measure the same but are not necessarily the same