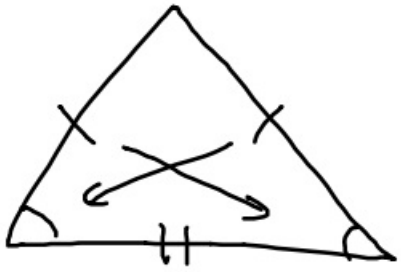
10-14-19 7th Geometry

Classifying Triangles

Side length

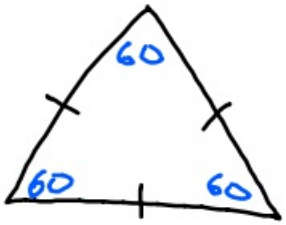
Scalene

No sides are = in length.
Thus, no angles = either



Isosceles

2 sides are = in length
∴ 2 angles =



Equilateral

All sides are =
∴ all ∠'s are =.

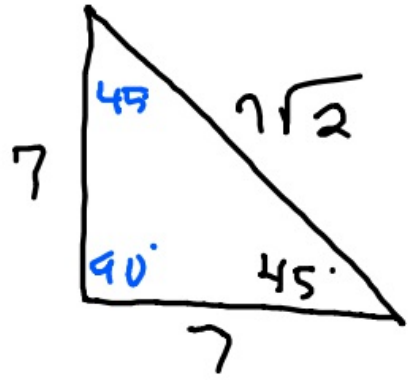
Classify by angle

Obtuse
1 angle > 90°

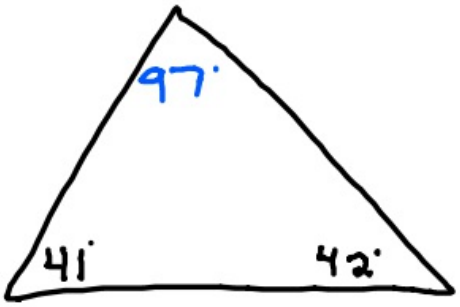
Acute
All angles less than 90°

Right
One angle = 90.

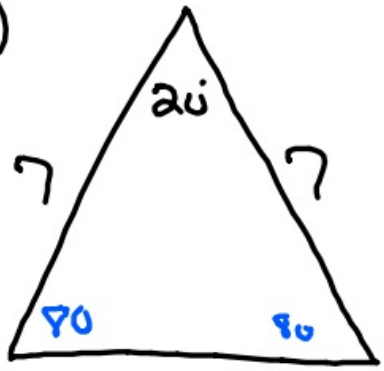
Tell me what type of triangle each is.

① 

Right Isosceles

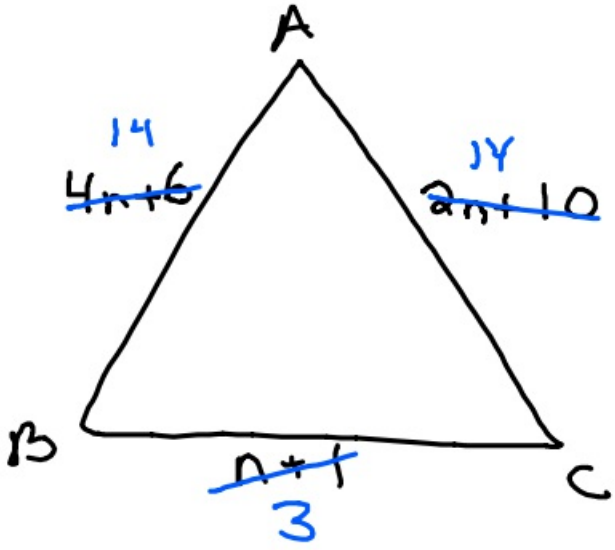
② 

Obtuse Scalene

③ 

Acute Isosceles

$\triangle ABC$ is an isosceles $\triangle$ with $\overline{AB} \cong \overline{AC}$. Find all side lengths.



$4n+6 = 2n+10$

$-2n \quad -2n$

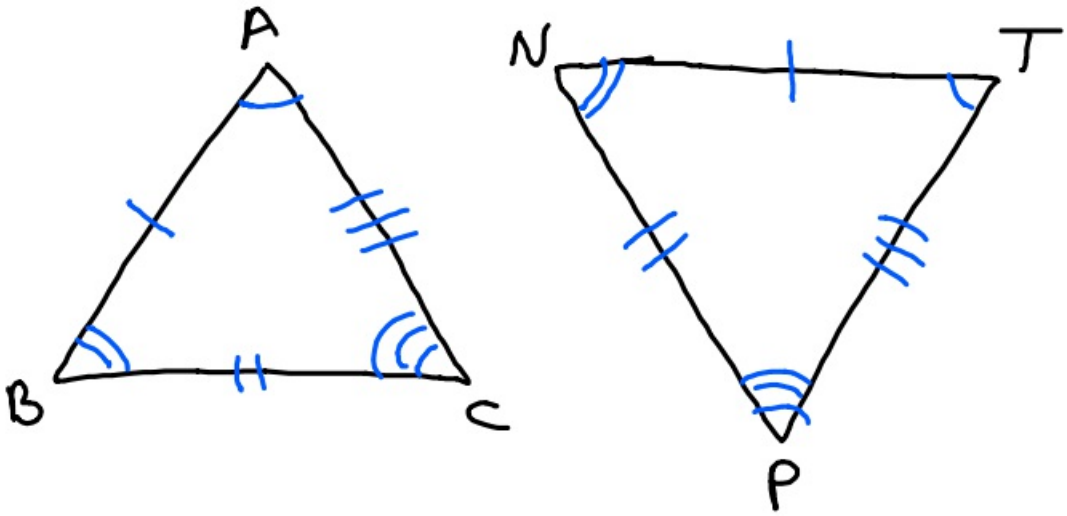
$2n+6 = 10$

$-6 \quad -6$

$2n = 4$

$n = 2$

Congruent triangles



$\triangle ABC \cong \triangle TNP$