

4-1: Classifying Triangles

“I WILL ...

...identifying and classify triangles.”

I. Triangle Classifications

A. Triangles are polygons with three sides. They are classified by their angle measures and side lengths

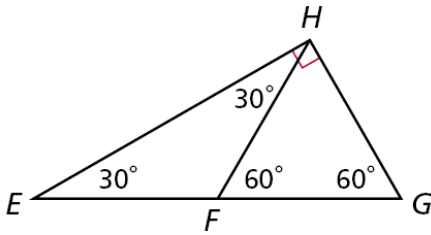
B. Angle Measure

1. Acute Triangle has three acute angles
2. Equiangular Triangle has three congruent acute angles
3. Right Triangle has one right angle
4. Obtuse Triangle has one obtuse angle

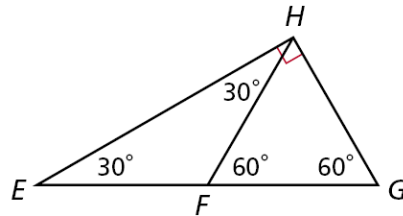
C. Side Lengths

1. Equilateral Triangle has three congruent sides
2. Isosceles Triangle has at least two congruent sides
3. Scalene Triangle has no congruent sides

Ex 1: Classify $\triangle FHG$ by its angle measures and identify the name.



Your Turn: Classify $\triangle FHE$ by its angle measures and identify the name.

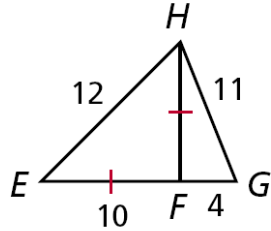


Ex 2: Draw an isosceles right angle. If a picture is not possible, explain why.

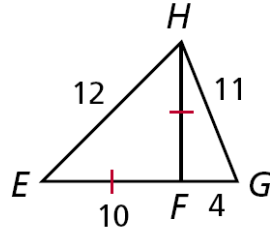
Ex 3: Draw a scalene equiangular. If a picture is not possible, explain why.

Your Turn: Draw a scalene right angle. If a picture is not possible, explain why.

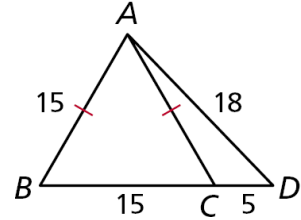
Ex 4: Classify $\triangle EHF$ by its side lengths, the length of \overline{HF} and identify the name.



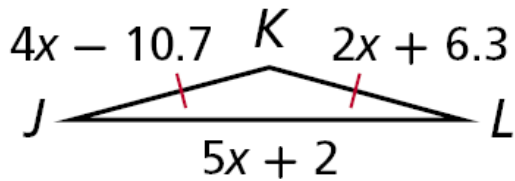
Ex 5: Classify $\triangle EHG$ by its side lengths, the length of \overline{HF} and identify the name.



Your Turn: Classify $\triangle ADB$ by its side lengths, the length of \overline{AC} and identify the name.



Ex 6: Find the side lengths of $\triangle JKL$, identify the type of triangle, and provide a two-column proof



Your Turn: Find the side lengths of equilateral $\triangle FGH$ and provide a two-column proof

