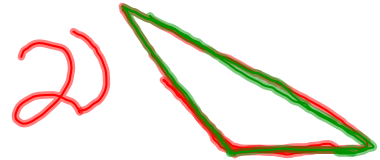
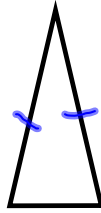


Draw an example of each type of triangle:

- 1) acute triangle
- 2) obtuse triangle
- 3) equiangular triangle
- 4) isosceles triangle
- 5) scalene triangle
- 6) equilateral triangle



Which 2 triangles from above are the same, but with a different name?

Draw an example of each type of triangle:

- 1) acute isosceles triangle
- 2) right scalene triangle
- 3) obtuse isosceles triangle
- 4) right isosceles triangle
- 5) obtuse scalene triangle
- 6) obtuse equilateral triangle

①



②



③



⑤



Which triangle is impossible to draw? Why?



## Sec. 4.1 - Classifying Triangles

### Classifying by Angles

**Acute** - all angles less than  $90^\circ$

**Equiangular** - all angles =  $(60^\circ)$

**Obtuse** - 1 angle more than  $90^\circ$

**Right** - 1 right angle ( $90^\circ$ )

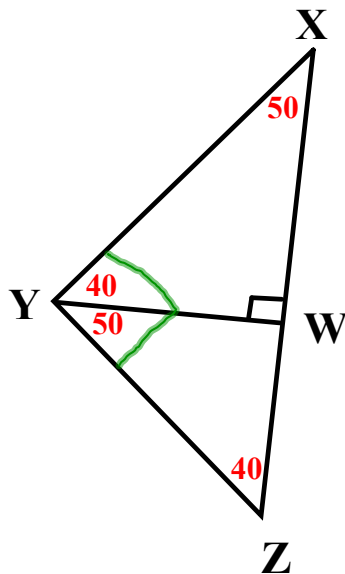
### Classifying by Sides

**Equilateral** - all sides =

**Isosceles** - 2 sides =

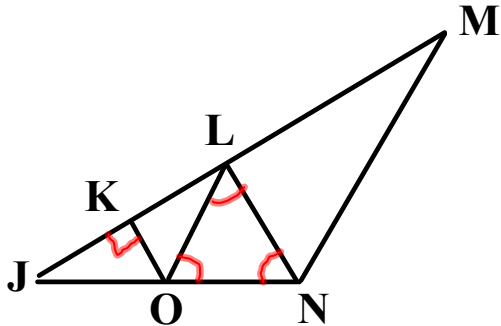
**Scalene** - no sides =

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



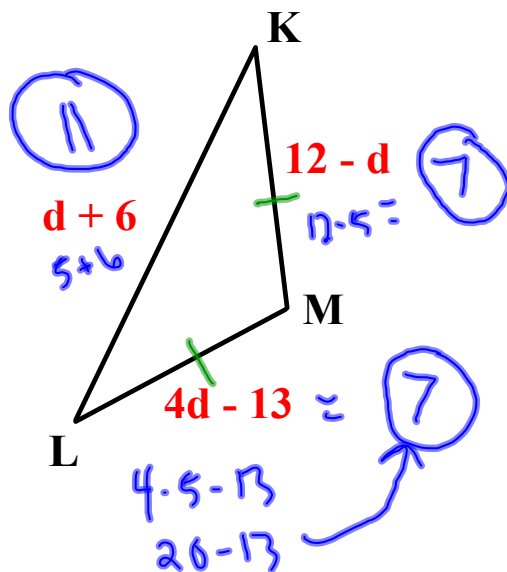
Right,  $\angle XYZ = 90$

**Architecture:** The triangular truss below is modeled for steel construction. Classify triangle JMN, JKO, & OLN as acute, equiangular, or right.



- $\triangle JMN = \text{obtuse}$
- $\triangle JKO = \text{right}$
- $\triangle OLN = \text{equiangular}$

Find the measures of all three sides of isosceles triangle KLM with base KL.



$$\begin{aligned}
 4d - 13 &= 12 - d && +d \\
 5d - 13 &= 12 && +13 \\
 \underline{5d} &= \underline{25} \\
 5 & && 5 \\
 \hline
 d &= 5
 \end{aligned}$$

## **Homework:**

**p.239, # 21-29 all, 32, 33,  
35 - 37 all, 44, 57-59 all, 65,  
66, 68**

**Honors: add 49-52 all, 60  
skip 36, 37**