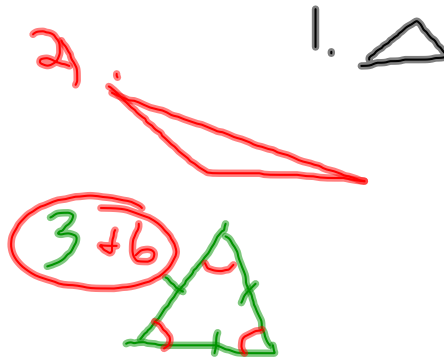


Draw an example of each type of triangle:

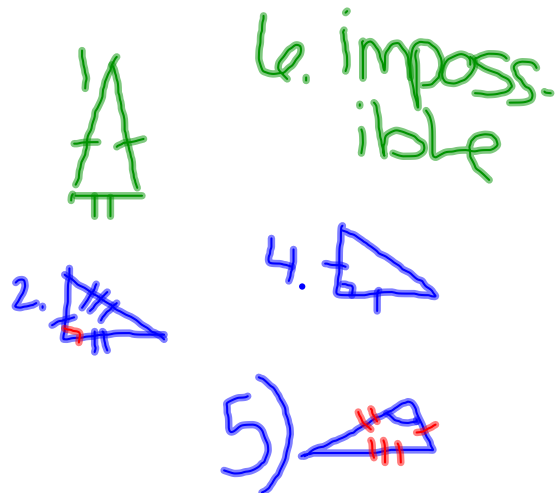
- 1) acute triangle
- 2) obtuse triangle
- 3) equiangular triangle
- 4) isosceles triangle
- 5) scalene triangle
- 6) equilateral triangle



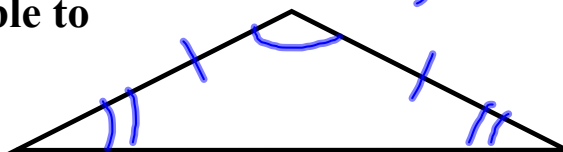
Which 2 triangles from above are the same, but with a different name?

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



Which triangle is impossible to draw? Why?



Sec. 4.1 - Classifying Triangles

Classifying by Angles

Acute - all angles less than 90°

Equiangular - all angles = (60°)

Obtuse - 1 angle more than 90°

Right - 1 right angle (90°)

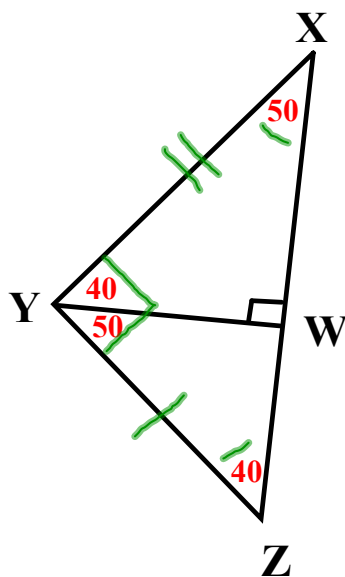
Classifying by Sides

Equilateral - all sides =

Isosceles - 2 sides =

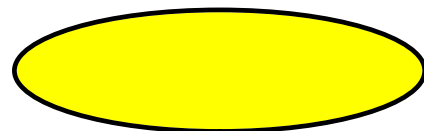
Scalene - no sides =

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

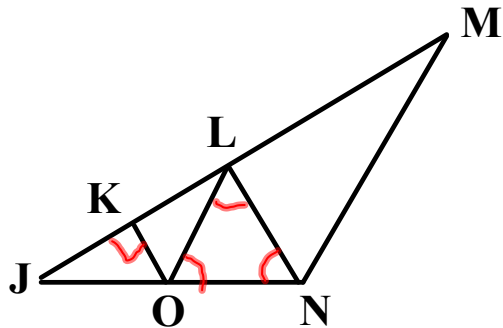


Scalene

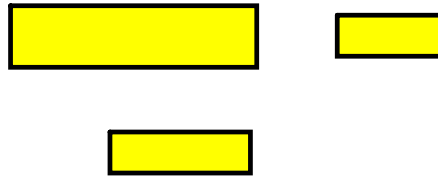
Right, $\angle XYZ = 90$



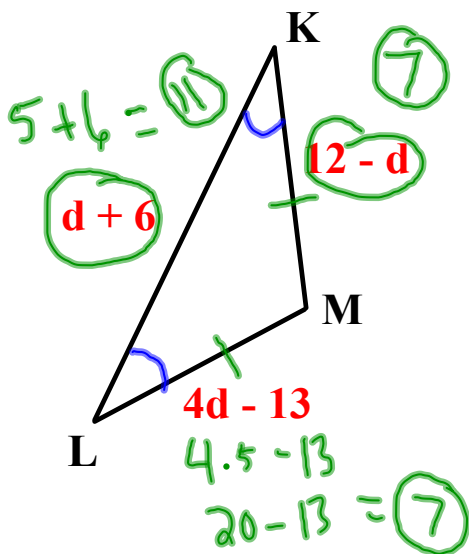
Architecture: The triangular truss below is modeled for steel construction. Classify triangle JMN, JKO, & OLN as acute, equiangular, obtuse, or right.



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



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



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

Homework:

**p.239, # 21-29 all, 32, 33, 35,
44, 49-52 all, 57-60 all, 65,
66, 68**