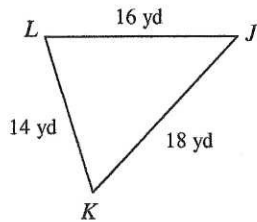


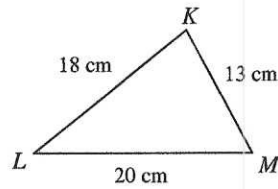
Inequalities in One Triangle

Order the angles in each triangle from smallest to largest.

1)



2)



3) In $\triangle RQP$

$$QP = 15 \text{ ft}$$

$$RP = 25 \text{ ft}$$

$$RQ = 13 \text{ ft}$$

4) In $\triangle TUV$

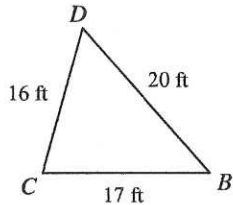
$$UV = 17 \text{ yd}$$

$$TV = 14 \text{ yd}$$

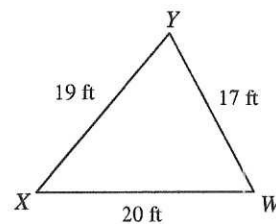
$$TU = 9 \text{ yd}$$

Name the largest and smallest angle in each triangle.

5)



6)



7) In $\triangle UVW$

$$VW = 13 \text{ m}$$

$$UW = 11.7 \text{ m}$$

$$UV = 5.8 \text{ m}$$

8) In $\triangle EFG$

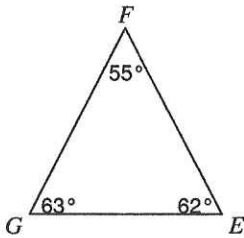
$$FG = 10.9 \text{ in}$$

$$EG = 17 \text{ in}$$

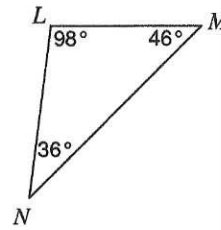
$$EF = 10.9 \text{ in}$$

Order the sides of each triangle from shortest to longest.

9)



10)



11) In $\triangle VWX$

$$m\angle V = 50^\circ$$

$$m\angle W = 48^\circ$$

$$m\angle X = 82^\circ$$

12) In $\triangle STU$

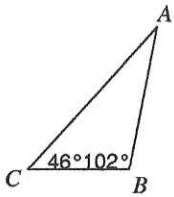
$$m\angle S = 50^\circ$$

$$m\angle T = 70^\circ$$

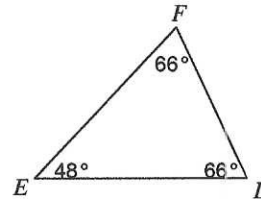
$$m\angle U = 60^\circ$$

Name the longest and shortest side in each triangle.

13)



14)



15) In $\triangle DEF$

$$m\angle D = 35^\circ$$

$$m\angle F = 95^\circ$$

16) In $\triangle KLM$

$$m\angle K = 50^\circ$$

$$m\angle L = 100^\circ$$

$$m\angle M = 30^\circ$$

Critical thinking questions:

17) In triangle ABC:

AB is the longest side.

70° is the measure of angle B.

Find the range of possible measures for angle A.

18) In triangle XYZ:

XY is the shortest side.

30° is the measure of angle Y.

Find the range of possible measures for angle X.