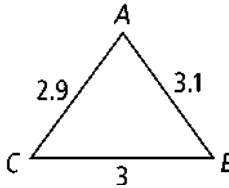
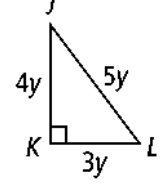


GEOMETRY
DAY 10 - 5.6 AND 5.7 HOMEWORK

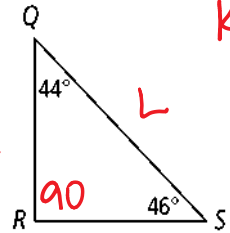
NAME: _____

List the angles from smallest to largest.

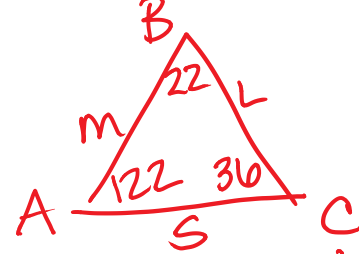
1.  $\angle B < \angle A < \angle C$

2.  $\angle J < \angle L < \angle K$

List the sides from smallest to largest.

3.  $\overline{RS} < \overline{QR} < \overline{SQ}$

4. $\triangle ABC$, with $m\angle A = 122^\circ$, $m\angle B = 22^\circ$, and $m\angle C = 36^\circ$

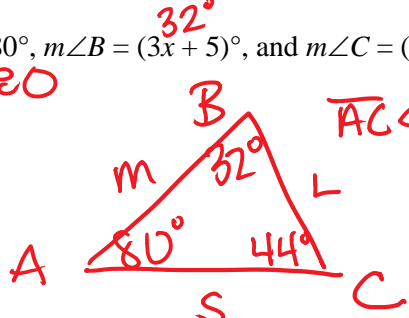


$\overline{AC} < \overline{AB} < \overline{BC}$

5. List the sides in order from shortest to longest in $\triangle ABC$, with $m\angle A = 80^\circ$, $m\angle B = (3x + 5)^\circ$, and $m\angle C = (5x - 1)^\circ$.

① Find x first: $80 + 3x + 5 + 5x - 1 = 180$
 $8x + 84 = 180$

$8x = 96$
 $x = 9$



$\overline{AC} < \overline{AB} < \overline{BC}$

Can a triangle have the sides of the given lengths?

6. 8 cm, 7 cm, 9 cm

$8 + 7 > 9$
 $15 > 9 \checkmark$ (yes!)

7. 7 ft, 13 ft, 6 ft

$7 + 6 > 13$
 $13 \not> 13$ NO!

What are the possible lengths of the 3rd side of the triangle?

8. 5, 11

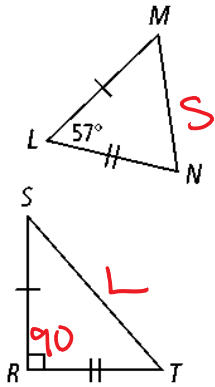
$11 - 5 < x < 11 + 5$
 $6 < x < 16$

9. 25, 10

$25 - 10 < x < 25 + 10$
 $15 < x < 35$

Write an inequality relating the given side lengths. If there is not enough information to reach a conclusion, write no conclusion.

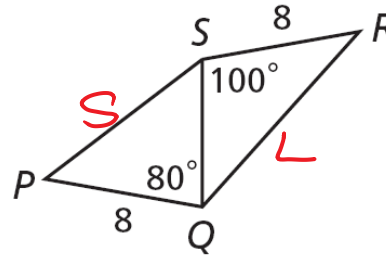
10. ST and MN



$$\overline{MN} < \overline{ST}$$

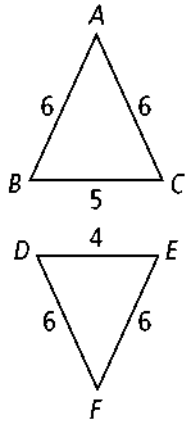
11. PS and QS

$$\overline{PS} < \overline{QR}$$



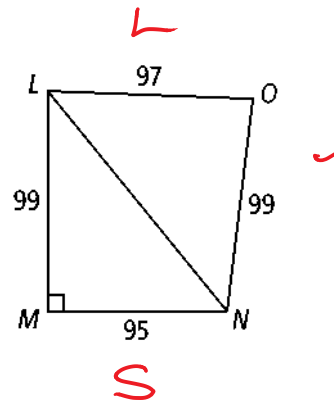
Write an inequality relating the given angle measures. If there is not enough information to reach a conclusion, write no conclusion.

12. $m\angle A$ and $m\angle F$



$$\angle F < \angle A$$

13. $m\angle MLN$ and $m\angle ONL$



$$\angle MLN < \angle ONL$$