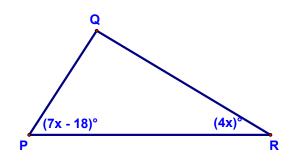
$$m_{\angle}P + m_{\angle}R < 180$$

PQ < QR

Write an inequality to describe the restrictions of x.



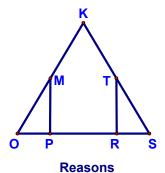
9.

Given:  $\overline{OP} \cong \overline{RS}$  $\overline{KO} \cong \overline{KS}$ 

M is the midpoint of  $\overline{OK}$ 

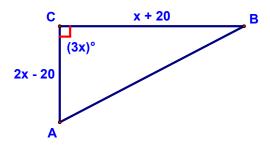
T is the midpoint of KS

Prove:  $\overline{MP} \cong \overline{TR}$ 



**Statements** 

## Is △ABC isosceles?



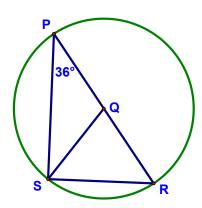
## 12.

Given: ⊙Q

 $\overline{PS} \perp \overline{SR}$  $m_{\angle}P = 36^{\circ}$ 

Find: a. m∠PSQ b. m∠R

Remember - we haven't yet proved that the sum of the measure of the angles of a  $\Delta$  is 180°!!



Prove that the median to the base of an isosceles  $\Delta$  bisects the vertex  $\angle$ .

Given:

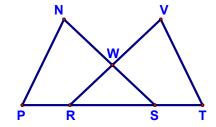
**Prove:** 

Statements	Reasons

16.

Given: PR ≈ S1

 $\frac{\overline{PR}}{\overline{NP}} \cong \frac{\overline{ST}}{\overline{VT}}$   $\angle P \cong \angle T$ 



Statements Reasons

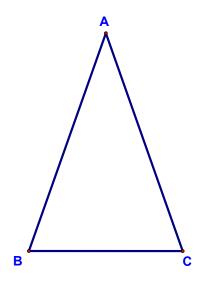
Given:  $\angle A$  is the vertex of an isosceles  $\triangle$ 

The number of degrees in  $\angle B$  is twice the number of centimeters in  $\overline{BC}$ 

The number of degrees in  $\angle C$  is three times the number of centimeters is  $\overline{AB}$ 

$$m_{\angle}B = x + 6$$
  
 $m_{\angle}C = 2x - 54$ 

Find: The perimeter of  $\triangle ABC$ 



22.

Given: FG ≈ JH

∠FGH ≅ ∠JHG

 G H

Statements Reasons

Find:  $x, y, and m \angle F$ 

