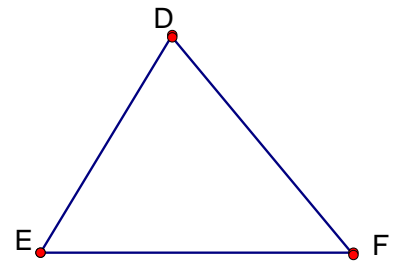
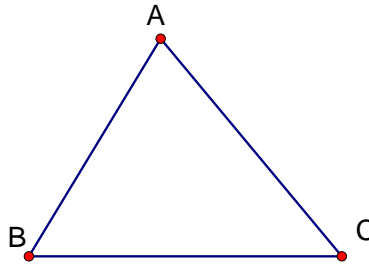


1. Suppose  $\overline{RT} \cong \overline{ND}$  and  $\angle R \cong \angle N$ . What additional information is needed to prove  $\triangle RTJ \cong \triangle NDF$  by ASA?
- $\angle F \cong \angle D$
  - $\angle R \cong \angle N$
  - $\angle J \cong \angle D$
  - $\angle T \cong \angle D$

2. If  $\angle A \cong \angle D$  and  $\angle C \cong \angle F$ , which additional statement does NOT allow you to conclude that  $\triangle ABC \cong \triangle DEF$ ?

- $\overline{BC} \cong \overline{EF}$
- $\angle B \cong \angle E$
- $\overline{AC} \cong \overline{DF}$
- $\overline{AB} \cong \overline{EF}$

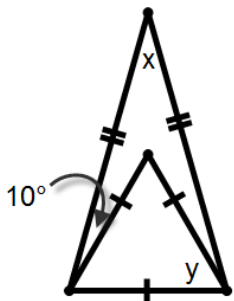


3. Triangle JKL is congruent to triangle PQR and  $m\angle K = 3a + 18$  and  $m\angle Q = 5a - 12$ . Find the measure of  $\angle K$  and  $\angle Q$ .

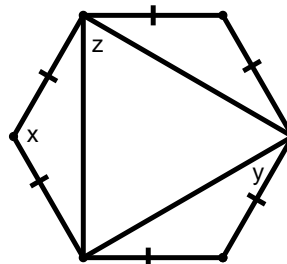
4. In  $\triangle ABC$ , if  $\overline{AB} \cong \overline{AC}$ ,  $m\angle B = 3x + 15$ ,  $m\angle C = 7x - 5$ , find  $m\angle B$  and  $m\angle C$ .

5. Solve for the variables:

a.



b.



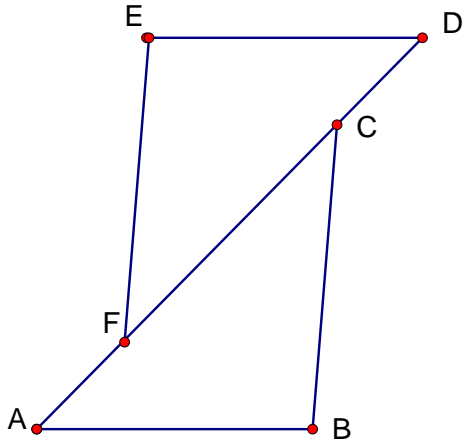
**Proofs:**

6. Given:  $\overline{BC} \parallel \overline{EF}$

$$\overline{BC} \cong \overline{EF}$$

$$\angle E \cong \angle B$$

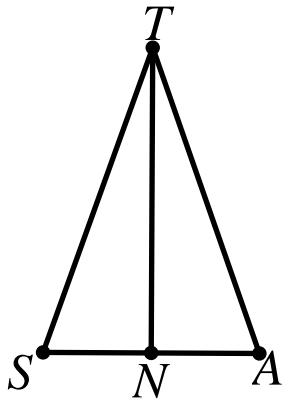
Prove:  $\overline{AF} \cong \overline{DC}$



7. Given:  $\overline{TN}$  bisects  $\overline{SA}$  at N

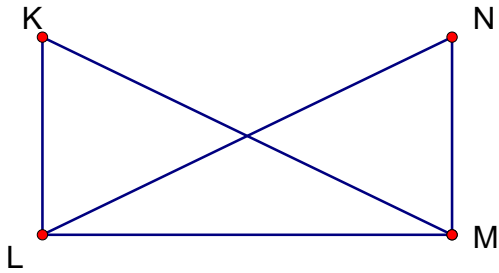
$$\angle S \cong \angle A$$

Prove:  $\overline{TN} \perp \overline{SA}$



8. Given:  $\overline{KM} \cong \overline{NL}$   
 $\angle KLM$  and  $\angle NML$  are right angles

Prove:  $\angle K \cong \angle N$



9. Given:  $\overline{AB} \cong \overline{CB}$   
E is midpoint of  $\overline{AC}$

Prove:  $\triangle AED \cong \triangle CED$

