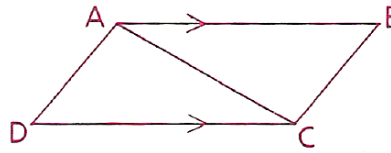


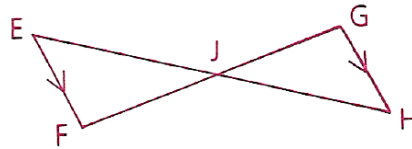
### 8.2.D2 ~ CPCTC & Circles

**PROOFS MUST BE DONE ON PROOF PAPER.**

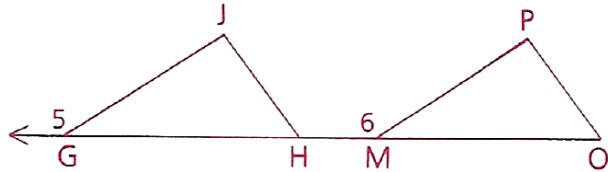
1. Given:  $\overline{AB} \cong \overline{DC}$   
 $\overline{AB} \parallel \overline{DC}$   
 Prove:  $\overline{AD} \cong \overline{BC}$



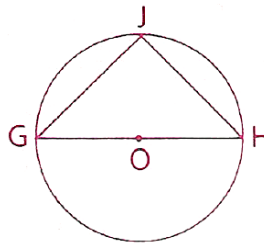
2. Given:  $\overline{EF} \cong \overline{GH}$   
 $\overline{EF} \parallel \overline{GH}$   
 Prove:  $\overline{EJ} \cong \overline{HJ}$



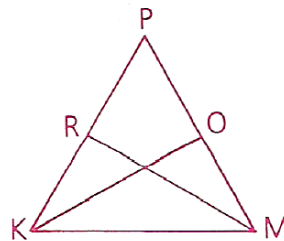
3. Given:  $\angle 5 \cong \angle 6$   
 $\angle JHG \cong \angle O$   
 $\overline{GH} \cong \overline{MO}$   
 Prove:  $\angle J \cong \angle P$



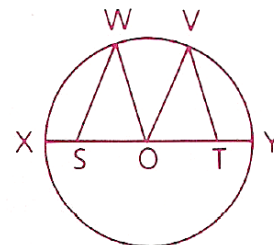
4. Given:  $\odot O$   
 $\overline{GJ} \cong \overline{HJ}$   
 Prove:  $\angle G \cong \angle H$



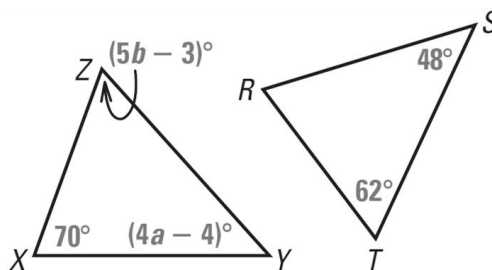
5. Given:  $\overline{MR}$  and  $\overline{KO}$  are altitudes of  $\triangle PKM$   
 $\angle RKM \cong \angle OMK$   
 Prove:  $\overline{MR} \cong \overline{KO}$



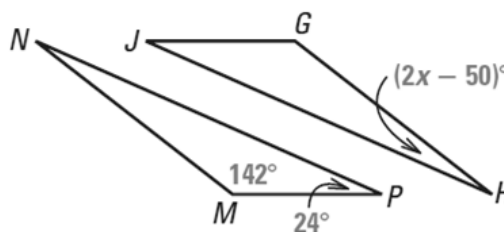
6. Given:  $\odot O$   
 $\angle SOV \cong \angle TOW$   
 $\angle WSO \cong \angle VTO$   
 Prove:  $\overline{SO} \cong \overline{TO}$



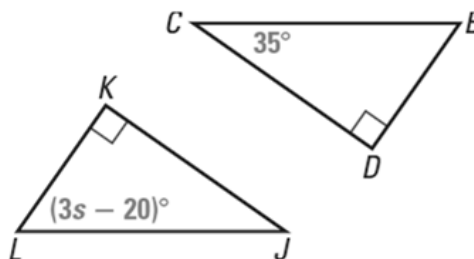
7. Given:  $\triangle XYZ \cong \triangle RST$   
Find the values of  $a$  and  $b$ .



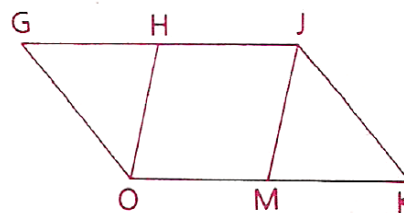
8. Given:  $\angle M \cong \angle G$  and  $\angle N \cong \angle H$   
Find the value of  $x$ .



9. Given:  $\angle K \cong \angle D$  and  $\angle J \cong \angle C$   
Find the value of  $s$ .



8. Given:  $H$  is the midpoint of  $\overline{GJ}$   
 $M$  is the midpoint of  $\overline{OK}$   
 $\overline{GO} \cong \overline{JK}$   
 $\overline{GJ} \cong \overline{OK}$   
 $\angle G \cong \angle K$   
 $OK = 27$   
 $m\angle GOH = x + 24$   
 $m\angle GHO = 2y - 7$   
 $m\angle JMK = 3y - 23$   
 $m\angle MJK = 4x - 105$



- Find:  $m\angle GOH$   
 $m\angle GHO$   
 $GH$