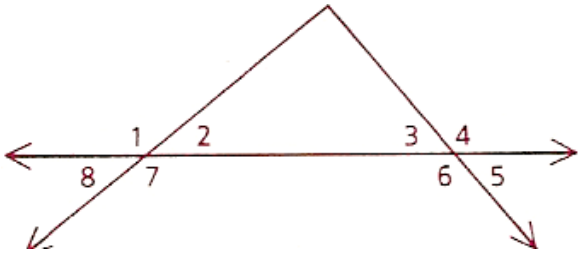
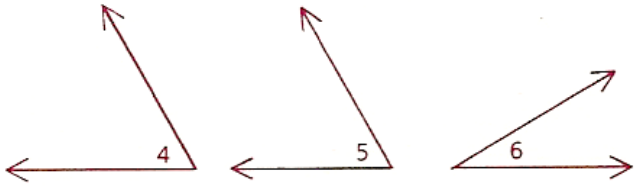
2.8 Complementary & Supplementary Angles

1. Given: $\angle 2$ is comp. to $\angle 3$
   $m\angle 4 = 131$
   Find: The measures of all the numbered angles.



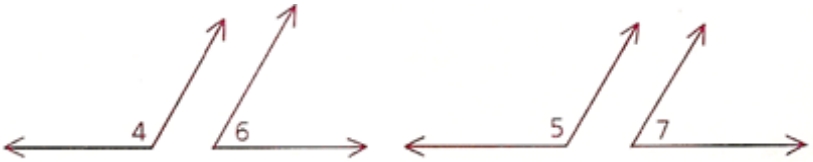
2. Given: $\angle 4$ is comp. to $\angle 6$
   $\angle 5$ is comp. to $\angle 6$

   Explain why $\angle 4 \cong \angle 5$.



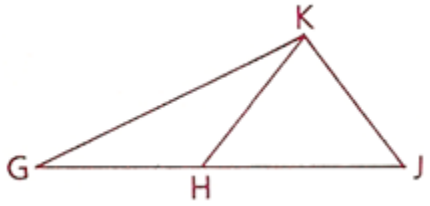
3. Given: $\angle 4$ is supp. to $\angle 6$
   $\angle 5$ is supp. to $\angle 7$
   $\angle 4 \cong \angle 5$

   Explain why $\angle 6 \cong \angle 7$.



4. Given: Diagram as shown

   Explain why $\angle GHK$ is supp. to $\angle KHJ$.



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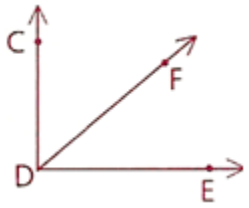
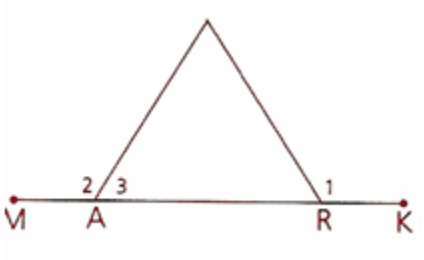
Two-Column Proof Problems:

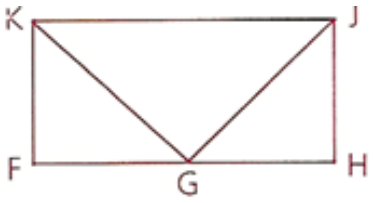
5. Given: $\overleftrightarrow{CD} \perp \overleftrightarrow{DE}$
   Prove: $\angle CDF$ is comp. to $\angle FDE$



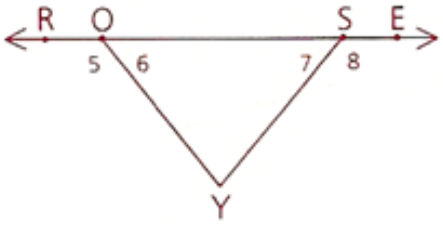
6. Given: $\angle 1 \cong \angle 2$
   Prove: $\angle 1$ is supp. to $\angle 3$



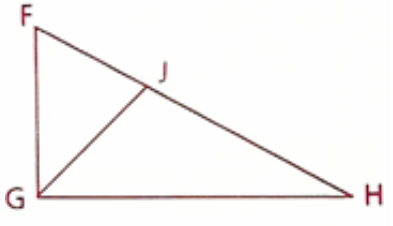
7. Given: $\angle FKJ$ is a right $\angle$
   $\angle HJK$ is a right $\angle$
   $\angle GKJ \cong \angle GJK$
   Prove: $\angle FKG \cong \angle HJG$



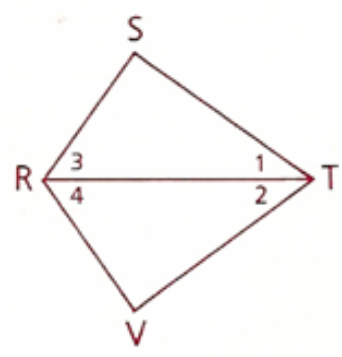
8. Given: Diagram as shown
   $\angle 6 \cong \angle 7$
   Prove: $\angle 5 \cong \angle 8$



9. Given: $\angle F$ is comp. to $\angle FGJ$
   $\angle H$ is comp. to $\angle HGJ$
   $\overrightarrow{GJ}$ bisects $\angle FGH$
   Prove: $\angle F \cong \angle H$



10. Given: $\angle 1$ is comp. to $\angle 4$
    $\angle 2$ is comp. to $\angle 3$
    $\overrightarrow{RT}$ bisects $\angle SRV$
    Prove: $\overrightarrow{TR}$ bisects $\angle STV$



PROOFS MUST BE DONE ON PROOF PAPER.