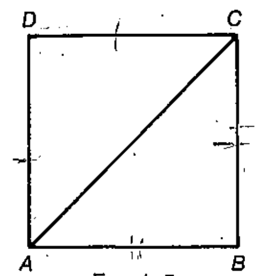
NAME ______________________ DATE __________ SCORE __________

Practice 17
Chapter 4 Practice

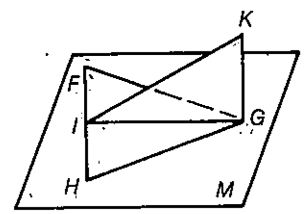
Can the two triangles be proved congruent? If so, name the theorem, definition, or postulate that can be used. If not, write *no congruence can be deduced.*



Exs. 1–5

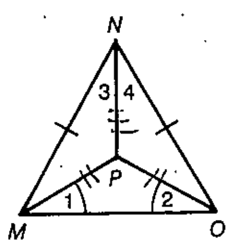
1. $\overline{DC} \parallel \overline{AB}, \overline{AD} \parallel \overline{CB}$ ~~AAS~~ ASA
2. $\overline{DA} \cong \overline{BC}, \overline{DC} \parallel \overline{AB}$ No $\cong$
3. $\overline{DA} \cong \overline{BC}, \overline{DA} \parallel \overline{CB}$ SAS
4. $\overline{AD} \perp \overline{DC}, \overline{CB} \perp \overline{BA}, \overline{DA} \cong \overline{BC}$ HL
5. $\overline{DA} \cong \overline{DC}, \overline{BA} \cong \overline{BC}$ No $\cong$

Complete.



Exs. 6–10

6. If $\triangle FGI \cong \triangle KIG$, then:
   a. $\overline{FG} \cong$ KI b. $m\angle F = m\angle$ K
   c. FI $= KG$ d. $\triangle GIF \cong$ $\triangle$IGK
7. If $\overline{KG}$ is perpendicular to plane M at G, name three right angles. $\angle$KGF, $\angle$KGI, $\angle$KGH
8. If $\overline{FG} \cong \overline{GH}$, $m\angle F = 60 + x$ and $m\angle H = 5x + 20$, then $x =$ 10.
   60 + x = 5x + 20
   40 = 4x
9. If $\overline{GI}$ is a median of $\triangle FGH$, then FI = HI.
10. If $\overline{GI}$ is both an altitude and a median of $\triangle FGH$, then $\triangle FGH$ is a(n) Isosceles triangle.
11. Given: $\overline{MN} \cong \overline{ON}$; $\angle 1 \cong \angle 2$
    Prove: $\angle 3 \cong \angle 4$



1. $\overline{MN} \cong \overline{ON}$; $\angle 1 \cong \angle 2$ — 1. Given
2. $\overline{MP} \cong \overline{OP}$ — 2. 2 $\angle$'s $\triangle \cong \Rightarrow$ sides opp. $\angle$'s $\cong$
3. $\overline{NP} \cong \overline{NP}$ — 3. Reflexive
4. $\triangle NPM \cong \triangle NPO$ — 4. SSS
5. $\angle 3 \cong \angle 4$ — 5. CPCTC