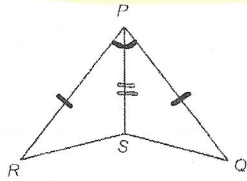


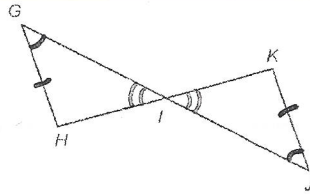
UNIT 2 TEST REVIEW

Congruent Triangles: Determine whether each pair of triangles are congruent (SSS, SAS, ASA, AAS, or HL). If not, write not congruent. If they are congruent, write a congruence statement.

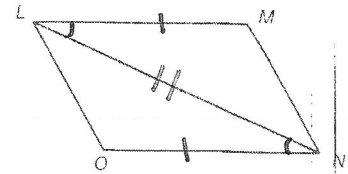
1. $\triangle RPS \cong \triangle QPS$, by **SAS**



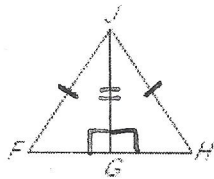
2. $\triangle GHI \cong \triangle JKI$, by **AAS**



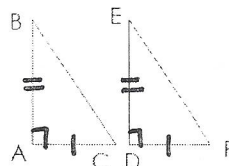
3. $\triangle NOL \cong \triangle LMN$, by **SAS**



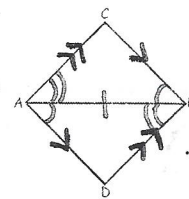
4. $\triangle JGF \cong \triangle JGH$, by **HL**



5. $\triangle ABC \cong \triangle DEF$, by **SAS**

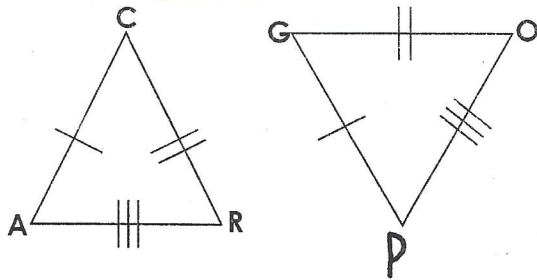


6. $\triangle BAC \cong \triangle ABD$, by **ASA**

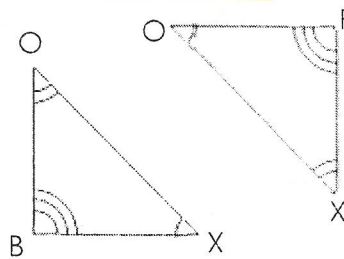


Congruent Triangles: Write the congruence statement for each pair of triangles.

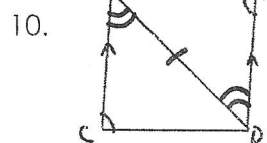
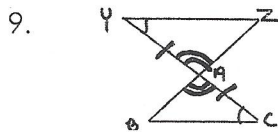
7. $\triangle RAC \cong \triangle OPG$



8. $\triangle FOX \cong \triangle NOT$



Proofs: Complete the following proofs.

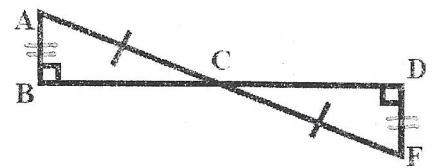
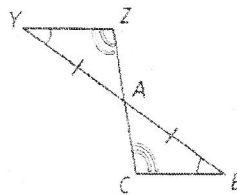
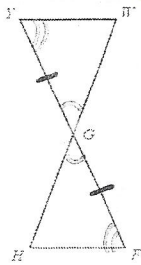


Statement	Reason
1. $\angle Y \cong \angle C$	1. given
2. A is mdpt of \overline{YC}	2. Given
3. $\overline{AY} \cong \overline{AC}$	3. def. of a midpoint
4. $\angle YAZ \cong \angle CAB$	4. vertical \angle s are \cong
5. $\triangle YZA \cong \triangle CBA$	5. ASA \cong post.

Statement	Reason
1. $\angle B \cong \angle C$	1. given
2. $\overline{AC} \parallel \overline{BD}$	2. given
3. $\angle CAD \cong \angle BDA$	3. alt int \angle s are \cong
4. $\overline{AD} \cong \overline{DA}$	4. reflexive prop
5. $\triangle ACD \cong \triangle DBA$	5. AAS \cong post.

Missing Information: State what additional information (Sides or Angles) is required to know that the triangles are congruent for the reason given. **Hint: Mark the drawing!**

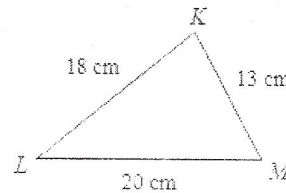
11. ASA; $\angle Y \cong \angle F$ 12. AAS; $\angle Z \cong \angle C$ 13. HL; $\overline{AB} \cong \overline{FD}$



Triangle Theorems: Use your knowledge of triangle theorems to complete the following.

14. List the angles from smallest to biggest.

$\angle L, \angle M, \angle K$



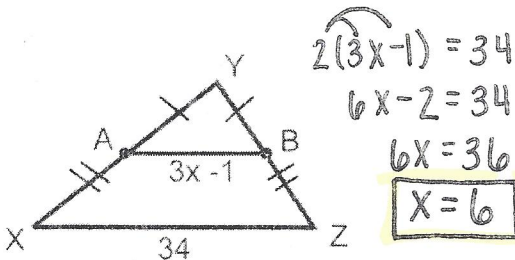
15. Show how you know that the following lengths can make a triangle: 9, 14, 22.

$9 + 14 > 22$ ✓
 $14 + 22 > 9$ ✓
 $9 + 22 > 14$ ✓

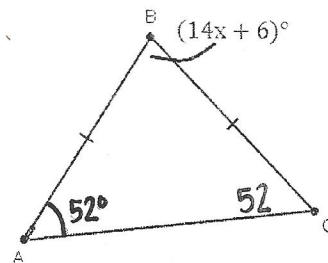
Those sides can make a triangle

Free Response: Solve. Show all work.

16. Find the value of x.

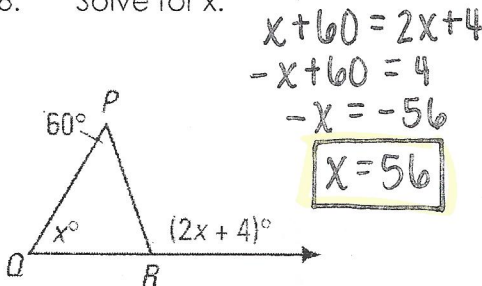


17. Solve for x.



$180 - 104 = 76$
 $14x + 6 = 76$
 $14x = 70$
 $x = 5$

18. Solve for x.



19. Find the missing segment.

$\frac{15}{24} = \frac{35}{x}$
 $15x = 840$
 $x = 56$

