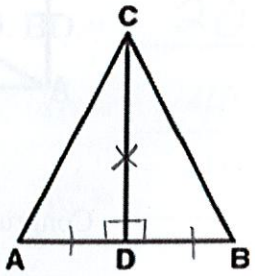
Quiz Review Name: Teacher's Key Date: _____

GIVEN: $\triangle ABC$, $\overline{CD} \perp \overline{AB}$
D midpoint of $\overline{AB}$.

PROVE: $\triangle ACD \cong \triangle BCD$

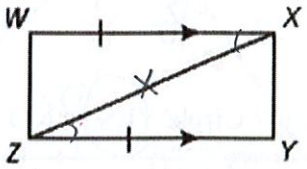


Statements	Reasons
1.) $\overline{CD} \perp \overline{AB}$, D is midpt of $\overline{AB}$	1.) Given
2.) $\angle CDA$ & $\angle CDB$ are rt. $\angle$'s	2.) Def. of $\perp$ lines
3.) $\angle CDA \cong \angle CDB$	3.) all rt $\angle$'s are $\cong$
4.) $\overline{AD} \cong \overline{BD}$	4.) Def of midpt.
5.) $\overline{CD} \cong \overline{CD}$	5.) Reflexive POE
6.) $\triangle ACD \cong \triangle BCD$	6.) SAS

2.

Given: $\overline{WX} \parallel \overline{YZ}, \overline{WX} \cong \overline{YZ}$

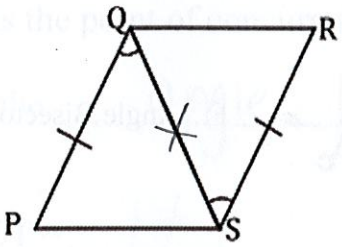
Prove: $\triangle WXZ \cong \triangle YZX$



Statements	Reasons
1.) $\overline{WX} \parallel \overline{YZ}$, $\overline{WX} \cong \overline{YZ}$	1.) Given
2.) $\angle WXZ \cong \angle YZX$	2.) AH. Int $\angle$'s
3.) $\overline{ZX} \cong \overline{ZX}$	3.) Reflexive POE
4.) $\triangle WXZ \cong \triangle YZX$	4.) SAS

3-6: Can the two triangles be proven congruent? Circle YES or NO. If so, tell which postulate or theorem you used and finish the congruency statement.

3.

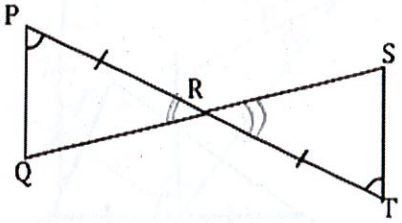


Congruent? Circle YES or NO

$\triangle PQS \cong \triangle$ RSQ

by SAS

4.

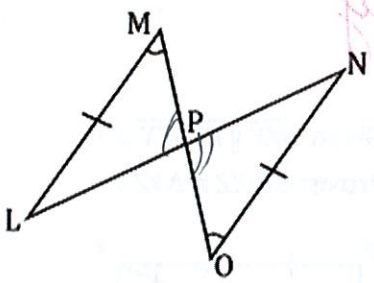


Congruent? Circle YES or NO

$\triangle QPR \cong \triangle$ STR

by ASA

5.

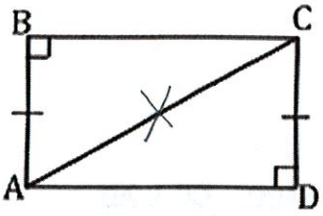


Congruent? Circle YES or NO

$\Delta MPL \cong \Delta$ OPN

by AAS

6.



Congruent? Circle YES or NO

$\Delta ABC \cong \Delta$ CDA

by HL

7-10: Match the picture with the corresponding point of concurrency.

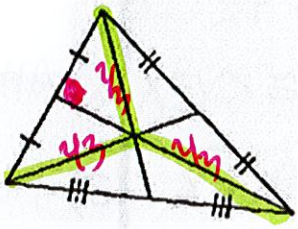
A. Centroid

B. Incenter

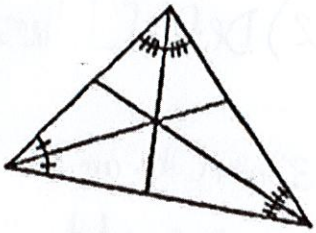
C. Circumcenter

D. Orthocenter

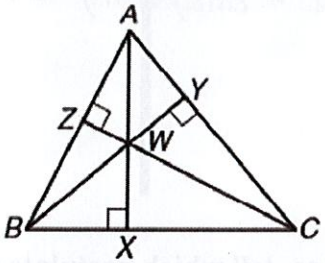
A 7.



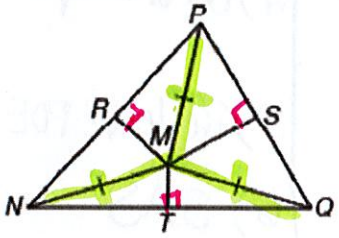
B 8.



D 9.



C 10.



11-14: Match the picture with the corresponding segments.

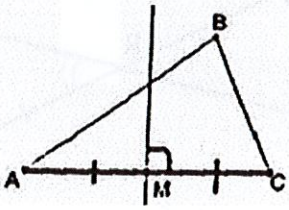
E. Median

F. Angle Bisector

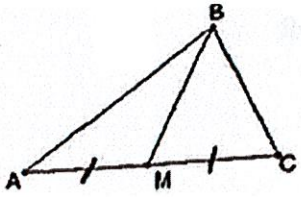
G. Perpendicular Bisector

H. Altitude

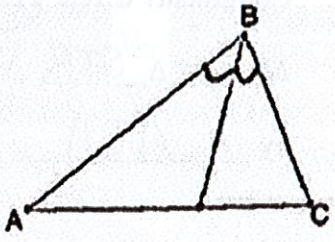
G 11.



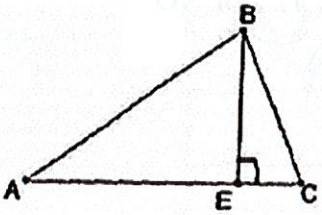
E 12.



F 13.



H 14.



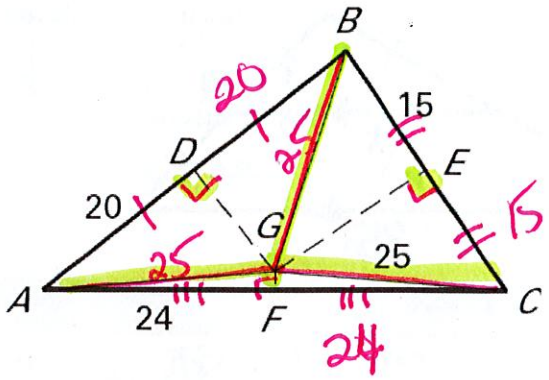
diagram, the perpendicular bisectors (shown with dashed segments) of ΔABC meet at at G--the *circumcenter*. and are shown dashed. Find the indicated measure.

15. AG = 25 20. BD = 20

16. CF = 24 21. AB = 40

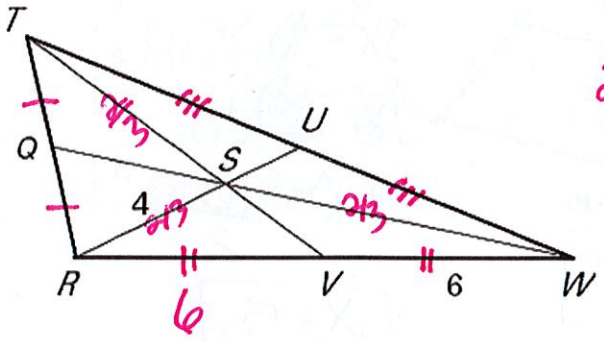
17. CE = 15 22. AC = 48

18. m∠ADG = 90°



19. IF BG = (2x – 15), find x. $2x-15=25$ $2x=40$ $x=20$

Point *S* is the *centroid* of ΔRTW, *RS* = 4, *VW* = 6, and *TV* = 9. Find the length of each segment.



2/3 rule

20. RV = 6

21. SU = 2

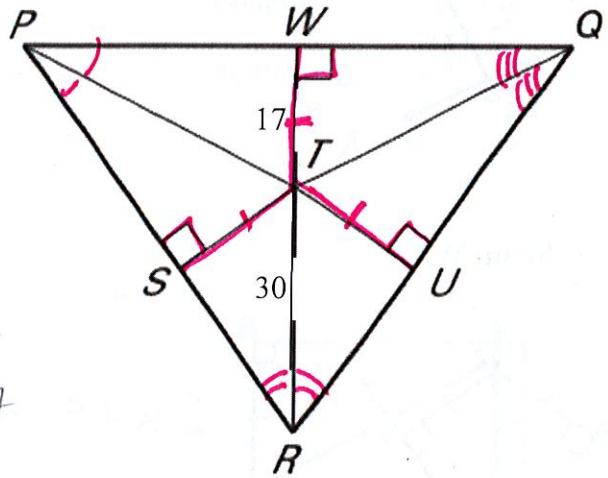
22. RU = 6

23. RW = 12

24. TS = 6

25. SV = 3

Point *T* is the *incenter* of ΔPQR.



26. If Point T is the ***incenter***, then Point T is the point of concurrency of

the angle bisectors.

27. ST = 17

28. If TU = (2x – 3), find x. $2x-3=17$ $\frac{2x}{2}=\frac{20}{2}$

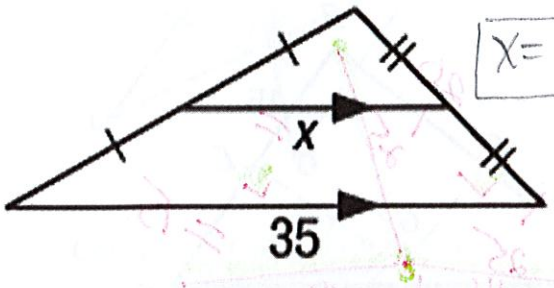
x = 10

29. If m∠PRT = 34°, then m∠QRT = 34°

30. If m∠RPQ = 52°, then m∠RPT = 26°

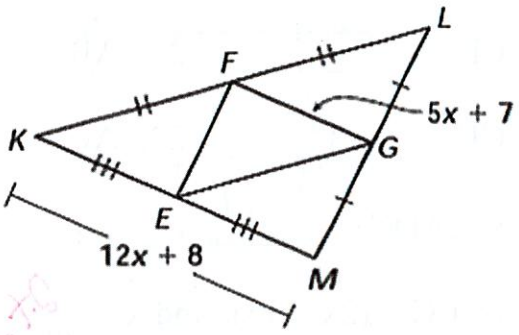
½ of larger ∠

31. Solve for each variable.



$X = 17.5$

32. Use the diagram below to find FG.



$2(5X+7) = 12X + 8$

$10X + 14 = 12X + 8$

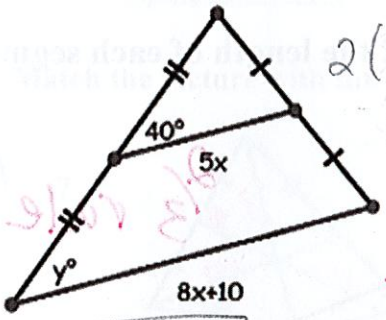
$14 = 2X + 8$

$\frac{6}{2} = \frac{2X}{2}$

$X = 3$

$\overline{FG} = 5(3)+7 = 22$

33. Solve for x and y.



$y = 40°$

$2(5X) = 8X + 10$

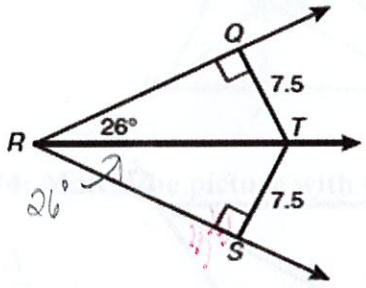
$10X = 8X + 10$

$-8X \quad -8X$

$\frac{2X}{2} = \frac{10}{2}$

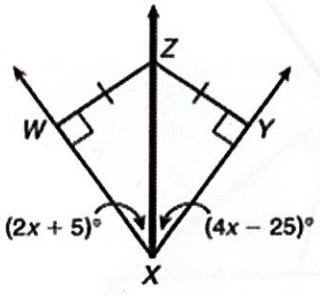
$X = 5$

34. Find the m<QRS.



$\angle QRS = 26 \times 2 = 52°$

35. Find the m<WXZ.



$2X + 5 = 4X - 25$

$5 = 2X - 25$

$\frac{30}{2} = \frac{2X}{2}$

$X = 15$

$m\angle WXZ = 2X + 5$

$= 2(15) + 5$

$= 35°$