Name _____ Class _____ Date _____

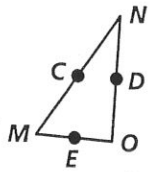
Practice 5-1

Midsegments of Triangles

Use the diagrams at the right to complete the exercises.

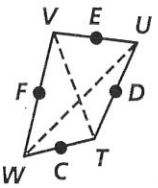
1. In $\triangle MNO$, the points C, D, and E are midpoints. $CD = 4$ cm; $CE = 8$ cm, and $DE = 7$ cm.

   a. Find MO. b. Find NO. c. Find MN.



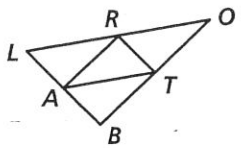
2. In quadrilateral $WVUT$, the points F, E, D, and C are midpoints. $WU = 45$ in. and $TV = 31$ in.

   a. Find CD. b. Find CF. c. Find ED.



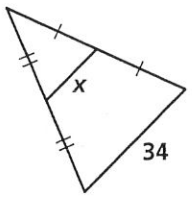
3. In $\triangle LOB$, the points A, R, and T are midpoints. $LB = 19$ cm, $LO = 35$ cm, and $OB = 29$ cm.

   a. Find RT. b. Find AT. c. Find AR.

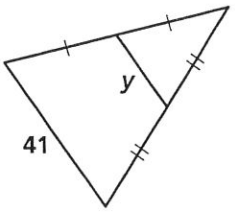


Find the value of the variable.

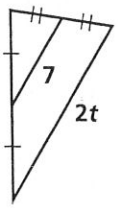
4.



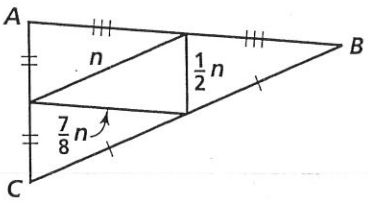
5.



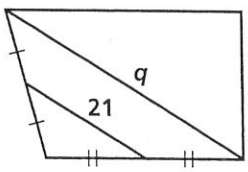
6.



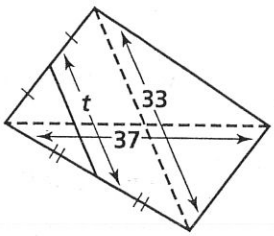
7. Perimeter of $\triangle ABC = 32$ cm



8.



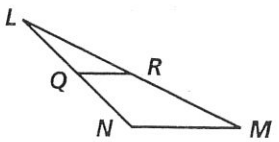
9.



10. $\overline{QR}$ is a midsegment of $\triangle LMN$.

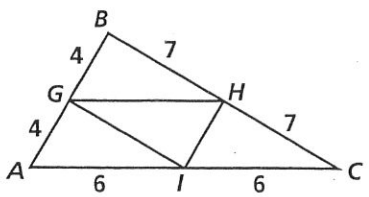
    a. $QR = 9$. Find NM.

    b. $LN = 12$ and $LM = 31$. Find the perimeter of $\triangle LMN$.

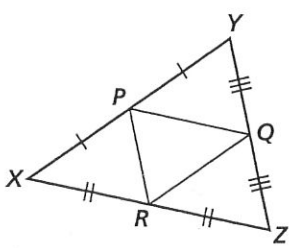


Use the given measures to identify three pairs of parallel segments in each diagram.

11.



12.

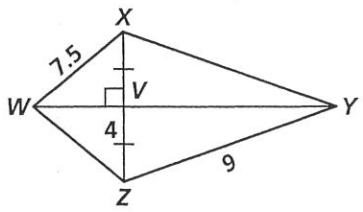


Name _____ Class _____ Date _____

Practice 5-2

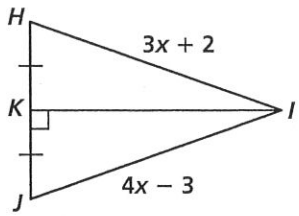
Bisectors in Triangles

Use the figure at the right for Exercises 1–5.



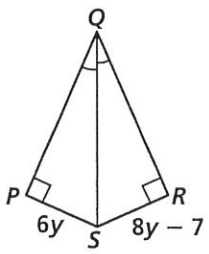
1. How is $\overline{WY}$ related to $\overline{XZ}$?
2. Find XV.
3. Find WZ.
4. Find XY.
5. What kind of triangle is $\triangle WXV$?

Use the figure at the right for Exercises 6–10.



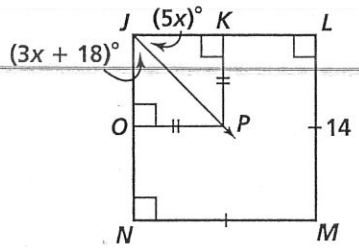
6. Find the value of x.
7. Find HI.
8. Find JL.
9. If L lies on $\overline{KI}$, then L is _?_ from H and J.
10. What kind of triangle is $\triangle HIJ$?

Use the figure at the right for Exercises 11–14.



11. Find the value of y.
12. Find PS.
13. Find RS.
14. What kind of triangle is $\triangle PQS$?

Use the figure at the right for Exercises 15–21.



15. How is $\overrightarrow{JP}$ related to $\angle LJN$?
16. Find the value of x.
17. Find $m\angle KJP$.
18. Find $m\angle OJP$.
19. Find NM.
20. Write a conclusion about point M.
21. What kind of triangle is $\triangle JOP$?