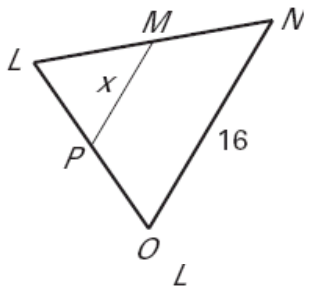
Name _____ **Date** _____

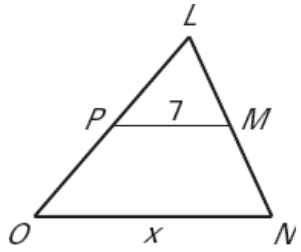
Assignment 40 LESSON 5.1

$\overline{MP}$ **a midsegment of** ΔLNO**. Find the value of** x**.**

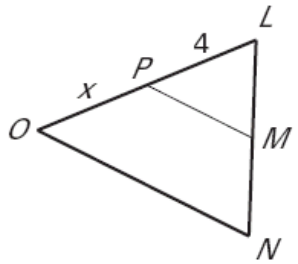
1



2



3.



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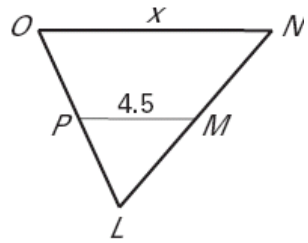
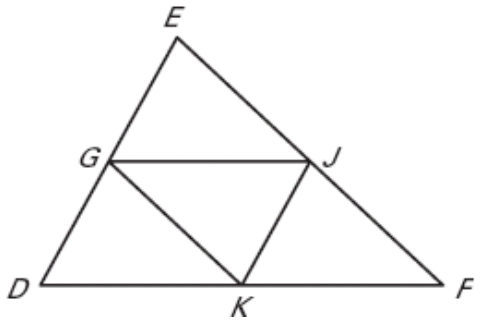


In ΔDEF**,** $\overline{EJ} \cong \overline{JF}$**,** $\overline{FK} \cong \overline{KD}$**, and** $\overline{DG} \cong \overline{GE}$ **. Copy and complete the statement.**



5. $\overline{GJ} \parallel$ __?__

6. $\overline{EJ} \cong$ __?__ $\cong$ __?__

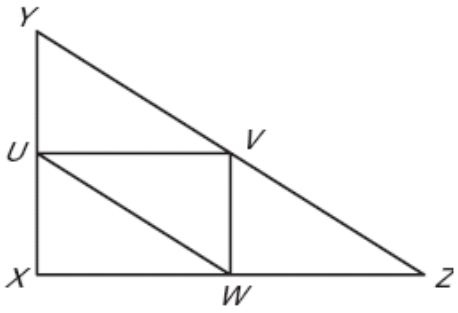
7. $\overline{DE} \parallel$ __?__

8. $\overline{GJ} \cong$ __?__ $\cong$ __?__

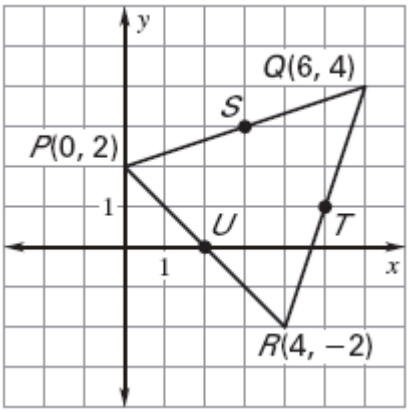
Use the diagram of ΔXVZ where *U*, *V*, and *W* are the midpoints of the sides.

9. If $UW = 4x - 1$ and $YZ = 5x + 4$, what is *UW*?

10. Find *YV*.



Use the graph shown.



11 Find the coordinates of the endpoints of each midsegment of ΔPQR.

12 Use the slope and the Distance Formula to verify that the Midsegment Theorem is true for $\overline{ST}$

Place the figure in a coordinate plane. Assign coordinates to each vertex.

13 A 4 unit by 7 unit rectangle with one vertex at (0, 0).

14 A square with side length *s* and one vertex at (*s*, 0).

Place the figure in a coordinate plane. Assign coordinates to each vertex. *Explain* the advantage of your placement.

15 Right triangle: leg lengths are 5 units and 9 units

16 Isosceles right triangle: leg length is 14 units