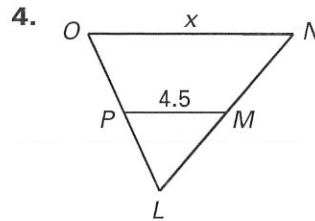
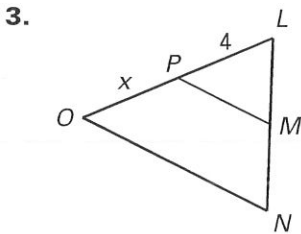
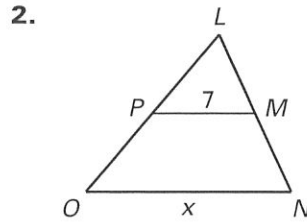
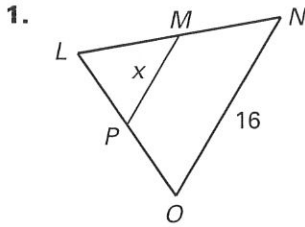


LESSON
5.1

Practice A

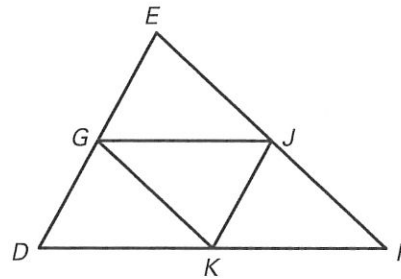
For use with the lesson "Midsegment Theorem and Coordinate Proof"

\overline{MP} is a midsegment of $\triangle LNO$. Find the value of x .



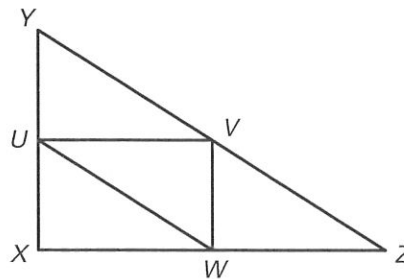
In $\triangle DEF$, $\overline{EJ} \cong \overline{JF}$, $\overline{FK} \cong \overline{KD}$, and $\overline{DG} \cong \overline{GE}$. Copy and complete the statement.

5. $\overline{GJ} \parallel$?
6. $\overline{EJ} \cong$? \cong ?
7. $\overline{DE} \parallel$?
8. $\overline{GJ} \cong$? \cong ?



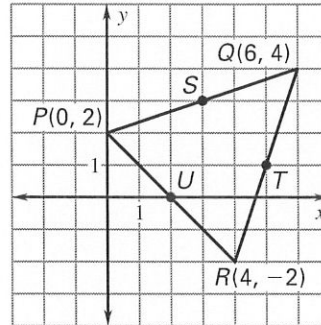
Use the diagram of $\triangle XYZ$ where U , V , and W are the midpoints of the sides.

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



LESSON
5.1
Practice A *continued*
For use with the lesson "Midsegment Theorem and Coordinate Proof"
Use the graph shown.

11. Find the coordinates of the endpoints of each midsegment of $\triangle PQR$.
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

17. **Proof** Describe a plan for the proof.

GIVEN: Coordinates of vertices of $\triangle ABC$

PROVE: $\triangle ABC$ is isosceles.

