Practice A

For use with pages 287–293

Use the diagram of $\triangle ABC$ where D, E, and F are the midpoints of the sides.

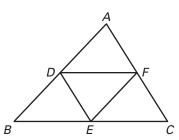


2.
$$\overline{FE} \parallel ?$$

3. If
$$AB = 14$$
, then $EF = ?$.

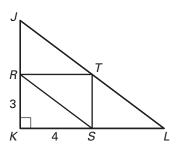
4. If
$$BE = 8$$
, then $DF = _?_.$

5. If
$$DE = 6$$
, then $AC = ?$.



Use the diagram of $\triangle JKL$ where R, S, and T are the midpoints of the sides, RK = 3, KS = 4, and $\overline{JK} \perp \overline{KL}$.

- **6.** Find the length of \overline{RS} .
- **7.** Find the length of \overline{JK} .
- **8.** Find the length of \overline{RT} .
- **9.** Find the perimeter of $\triangle JKL$.
- **10.** Name all of the right angles in the diagram.



Use the diagram of $\triangle MNO$ where X, Y, and Z are the midpoints of the sides.

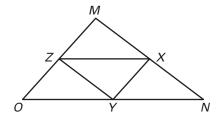
11. If
$$YZ = 3x + 1$$
, and $MN = 10x - 6$ then $YZ = ?$.

12. If
$$YX = x - 1$$
, and $MO = 3x - 7$ then $MO = ___?$.

13. If
$$m \angle MON = 48^{\circ}$$
, then $m \angle MZX = \underline{?}$.

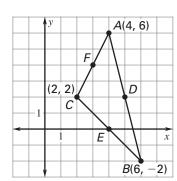
14. If
$$m \angle MXZ = 37^{\circ}$$
, then $m \angle MNO = ?$.

15. Name a triangle that appears to be congruent to $\triangle ZOY$.



Use the graph shown.

- **16.** Find the coordinates of the endpoints of each midsegment.
- **17.** Use the slope and the Distance Formula to verify that the Midsegment Theorem is true for \overline{DF} .
- **18.** Use the slope and the Distance Formula to verify that the Midsegment Theorem is true for \overline{FE} .
- **19.** Use the slope and the Distance Formula to verify that the Midsegment Theorem is true for \overline{DE} .
- **20.** Determine the perimeter of $\triangle ABC$ and $\triangle DEF$. What is the ratio of their perimeters, $\triangle ABC$ to $\triangle DEF$?



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