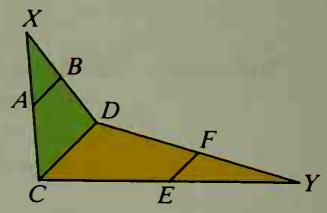
Written Exercises

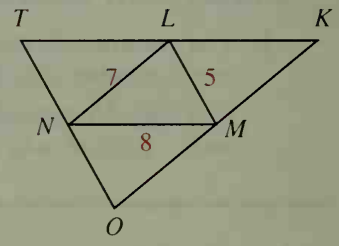
Points A, B, E, and F are the midpoints of $\overline{XC}$, $\overline{XD}$, $\overline{YC}$, and $\overline{YD}$. Complete.



A

1. If $CD = 24$, then $AB =$ ___? and $EF =$ ___?.
2. If $AB = k$, then $CD =$ ___? and $EF =$ ___?.
3. If $AB = 5x - 8$ and $EF = 3x$, then $x =$ ___?.
4. If $CD = 8x$ and $AB = 3x + 2$, then $x =$ ___?.

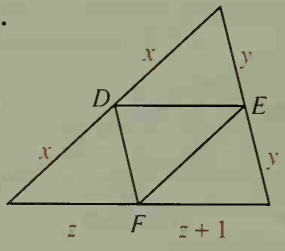
5. Given: L, M, and N are midpoints of the sides of $\triangle TKO$. Find the perimeter of each figure.
   a. $\triangle TKO$ **b.** $\triangle LMK$
   c. $\square TNML$ **d.** quad. $LNOK$



6. **a.** Name all triangles congruent to $\triangle TNL$.
   b. Suppose you are told that the area of $\triangle NLM$ is 17.32 cm^2. What is the area of $\triangle TKO$?

Name all the points shown that *must* be midpoints of the sides of the large triangle.

7.



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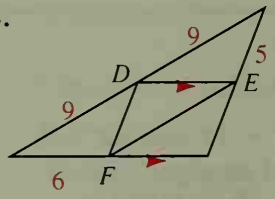
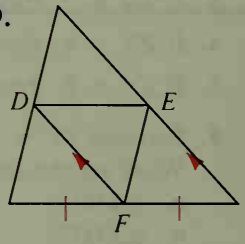
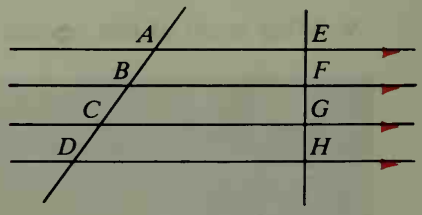


9.



$\overleftrightarrow{AE}$, $\overleftrightarrow{BF}$, $\overleftrightarrow{CG}$, and $\overleftrightarrow{DH}$ are parallel, with $EF = FG = GH$. Complete.

10. If $AB = 5$, then $AD =$ ___?.
11. If $AC = 12$, then $CD =$ ___?.
12. If $AB = 5x$ and $BC = 2x + 12$, then $x =$ ___?.
13. If $AC = 22 - x$ and $BD = 3x - 22$, then $x =$ ___?.



Exs. 10–15

B

14. If $AB = 15$, $BC = 2x - y$, and $CD = x + y$, then $x =$ ___? and $y =$ ___?.
15. If $AB = 12$, $BC = 2x + 3y$, and $BD = 8x$, then $x =$ ___? and $y =$ ___?.