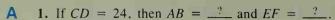
Written Exercises

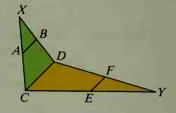
Points A, B, E, and F are the midpoints of \overline{XC} , \overline{XD} , \overline{YC} , and \overline{YD} . Complete.



2. If
$$AB = k$$
, then $CD = \frac{?}{}$ and $EF = \frac{?}{}$.

3. If
$$AB = 5x - 8$$
 and $EF = 3x$, then $x = \frac{?}{}$.

4. If
$$CD = 8x$$
 and $AB = 3x + 2$, then $x = \frac{?}{}$.



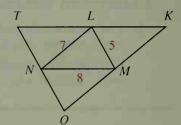
5. Given: L, M, and N are midpoints of the sides of $\triangle TKO$. Find the perimeter of each figure.

a.
$$\triangle TKO$$

b.
$$\triangle LMK$$

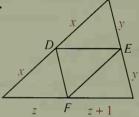
6. a. Name all triangles congruent to
$$\triangle TNL$$
.

b. Suppose you are told that the area of
$$\triangle NLM$$
 is 17.32 cm^2 . What is the area of $\triangle TKO$?

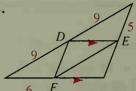


Name all the points shown that *must* be midpoints of the sides of the large triangle.

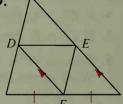
7.



8.



9.



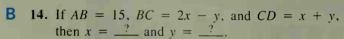
 \overrightarrow{AE} , \overrightarrow{BF} , \overrightarrow{CG} , and \overrightarrow{DH} are parallel, with EF = FG = GH. Complete.

10. If
$$AB = 5$$
, then $AD = \frac{?}{}$.

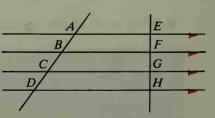
11. If
$$AC = 12$$
, then $CD = \frac{?}{}$.

12. If
$$AB = 5x$$
 and $BC = 2x + 12$, then $x = \frac{?}{}$.

13. If
$$AC = 22 - x$$
 and $BD = 3x - 22$, then $x = \frac{?}{}$.



15. If
$$AB = 12$$
, $BC = 2x + 3y$, and $BD = 8x$, then $x = \frac{?}{}$ and $y = \frac{?}{}$.



Exs. 10-15