

Name Key

Date \_\_\_\_\_

LESSON 5.1  
Practice C

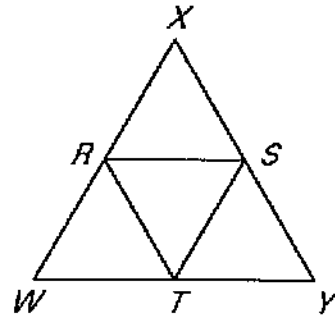
Use  $\triangle WXY$ , where  $R$ ,  $S$ , and  $T$  are midpoints of the sides.

1.  $\overline{RS} \parallel \overline{WY}$

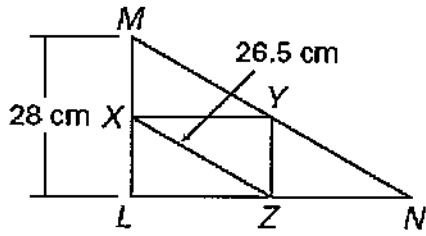
2.  $\overline{ST} \parallel \overline{XW}$

3. If  $RT = 7$ , then  $XY = \underline{14}$ .

4. If  $TY = 4$ , then  $RS = \underline{4}$ .



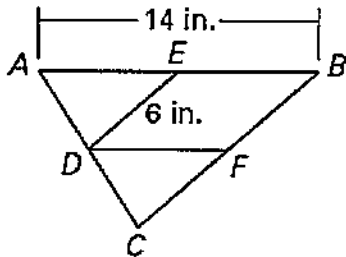
5. In the diagram,  $\overline{XZ}$  and  $\overline{ZY}$  are midsegments of  $\triangle LMN$ . Find  $MN$  and  $ZY$ .



$MN = 2(26.5) = 53 \text{ cm}$

$ZY = \frac{1}{2}(28) = 14 \text{ cm}$

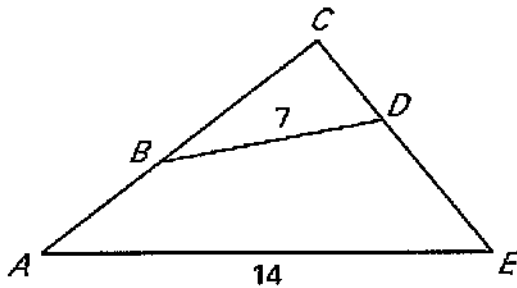
6. In the diagram,  $\overline{ED}$  and  $\overline{DF}$  are midsegments of  $\triangle ABC$ . Find  $DF$  and  $BC$ .



$DF = \frac{1}{2}(14) = 7$

$BC = 2(6) = 12$

7. Error Analysis Explain why  $\overline{BD}$  is not a midsegment of  $\triangle ACE$ .

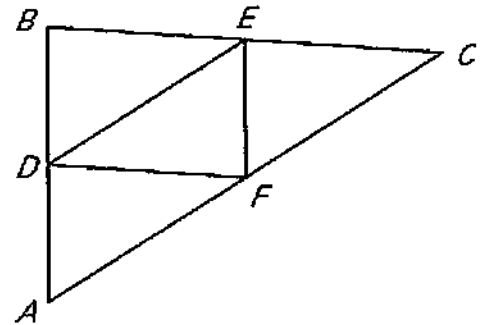


$\overline{BD}$  should be  $\parallel$  to  $\overline{AE}$

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

8. If  $FE = 6.5x - 10$  and  $AB = 3x + 20$ ,  
then  $AB = \underline{32}$ .

$$\begin{aligned} 2(6.5x - 10) &= 3x + 20 & AB &= 3(4) + 20 \\ 13x - 20 &= 3x + 20 & AB &= 12 + 20 \\ 10x &= 40 \\ x &= 4 \end{aligned}$$



9. If  $DF = 3.5x + 6$  and  $BC = 3x + 36$ , then  
 $DF = \underline{27}$ .

$$\begin{aligned} 2(3.5x + 6) &= 3x + 36 & DF &= 3.5(6) + 6 \\ 7x + 12 &= 3x + 36 & DF &= 27 \\ 4x &= 24 \\ x &= 6 \end{aligned}$$