NAME Key DATE PERIOD

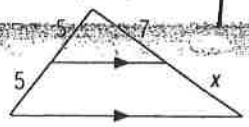
6-4 Study Guide and Intervention (continued)

Parallel Lines and Proportional Parts

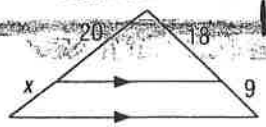
Divide Segments Proportionally When

Lesson 6-4

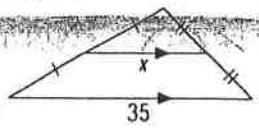
Find x.

1. 

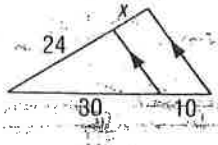
7

2. 

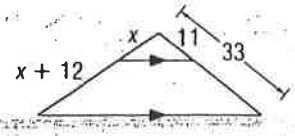
10

3. 

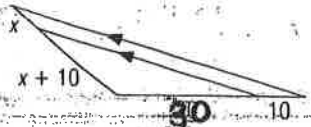
17.5

4. 

8

5. 

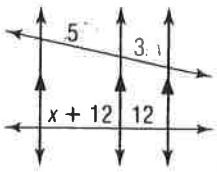
12

6. 

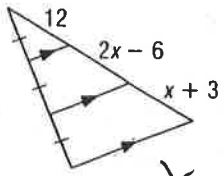
5

Exercises

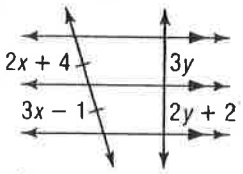
Find x and y.

1. 

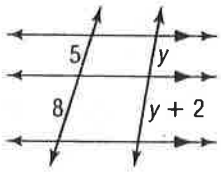
$x = 8$

2. 

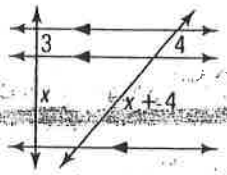
$x = 9$

3. 

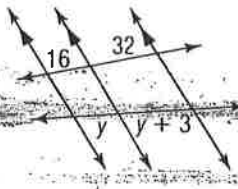
$x = 5 \quad y = 2$

4. 

$y = 3\frac{1}{3}$

5. 

$x = 12$

6. 

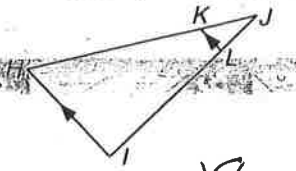
$y = 3$

NAME _____ DATE _____ PERIOD _____

6-4 Skills Practice

Parallel Lines and Proportional Parts

1. If $JK = 7$, $KH = 21$, and $JL = 6$, find LI.



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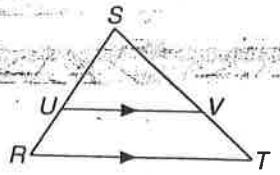
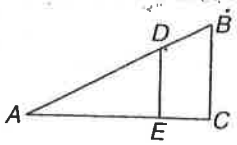
2. Find x and TV if $RU = 8$, $US = 14$, $TV = x - 1$ and $VS = 17.5$.



$x = 11$ $TV = 10$

Determine whether $\overline{BC} \parallel \overline{DE}$.



3. $AD = 15$, $DB = 12$, $AE = 10$, and $EC = 8$

yes

4. $BD = 9$, $BA = 27$, and CE is one third of EA

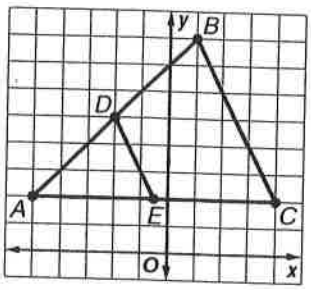
no

5. $AE = 30$, $AC = 45$, and AD is twice DB

yes

COORDINATE GEOMETRY For Exercises 6–8, use the following information.

Triangle ABC has vertices $A(-5, 2)$, $B(1, 8)$, and $C(4, 2)$. Point D is the midpoint of $\overline{AB}$ and E is the midpoint of $\overline{AC}$.

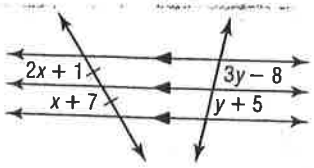


6. Identify the coordinates of D and E.

7. Show that $\overline{BC}$ is parallel to $\overline{DE}$.

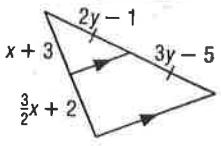
8. Show that $DE = \frac{1}{2}BC$.

9. Find x and y.



$x = 6$ $y = 6.5$

10. Find x and y.



$x = 2$ $y = 4$

Lesson 6-4