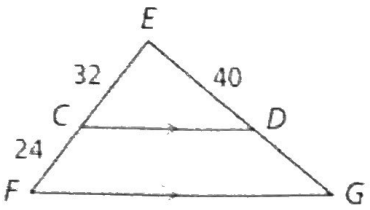
4.5 HW (pg. 276-278 #1-11 &15-20) Name: Key

Find the length of each segment.

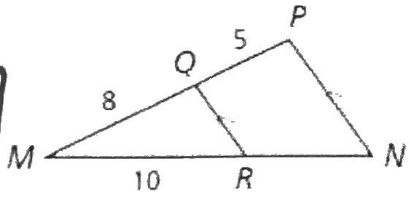
1. $\overline{DG}$

30



2. $\overline{RN}$

6.25

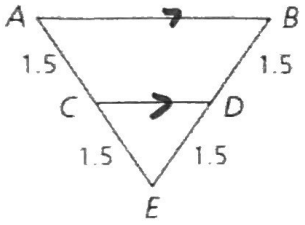


Verify that the given segments are parallel.

3. $\overline{AB}$ and $\overline{CD}$

$\frac{EC}{AC} = \frac{1}{1}$

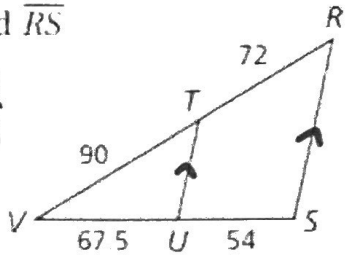
$\frac{ED}{DB} = 1$



4. $\overline{TU}$ and $\overline{RS}$

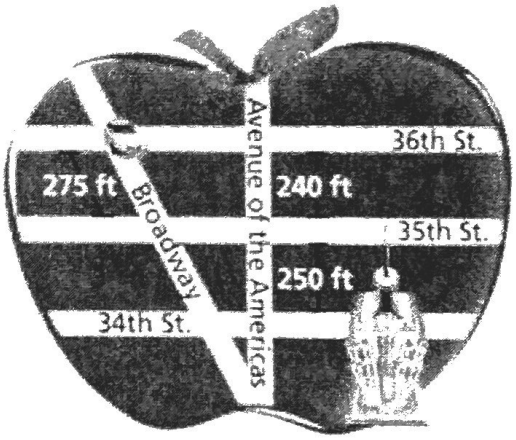
$\frac{WR}{WS} = \frac{5}{4}$

$\frac{VT}{TR} = \frac{5}{4}$



5. **Travel** The map shows the area around Herald Square in Manhattan, New York, and the approximate length of several streets. If the numbered streets are parallel, what is the length of Broadway between 34th St. and 35th St. to the nearest foot?

286 ft



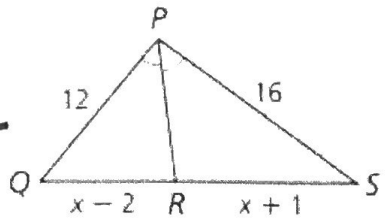
Back

Find the length of each segment.

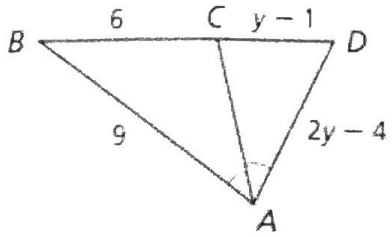
6. $\overline{QR}$ and $\overline{RS}$

QR = 9

RS = 12



7. $\overline{CD}$ and $\overline{AD}$



CD = 4

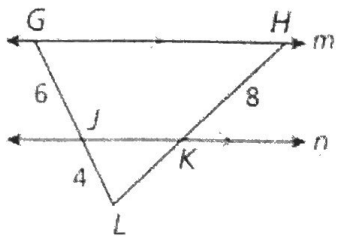
AD = 6

PRACTICE AND PROBLEM SOLVING

Find the length of each segment.

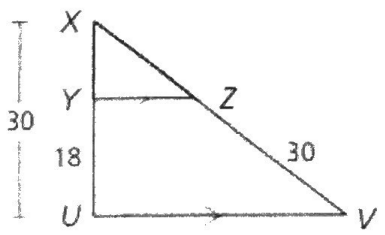
8. $\overline{KL}$

$5\frac{1}{3}$



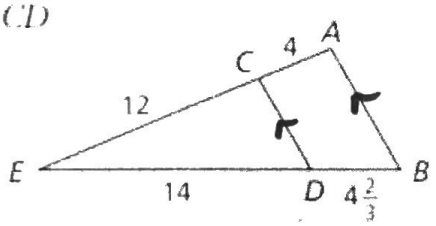
9. $\overline{XZ}$

20



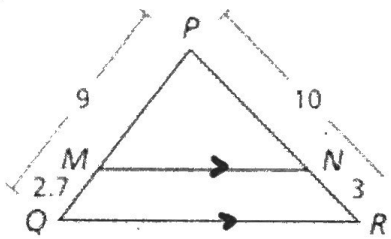
Verify that the given segments are parallel.

10. $\overline{AB}$ and $\overline{CD}$



$\frac{EC}{CA} = \frac{3}{1}$ & $\frac{ED}{DB} = \frac{3}{1}$

11. $\overline{MN}$ and $\overline{QR}$



$\frac{PM}{MQ} = \frac{7}{3}$ & $\frac{PN}{NR} = \frac{7}{3}$

In the figure, $\overleftrightarrow{BC} \parallel \overleftrightarrow{DE} \parallel \overleftrightarrow{FG}$. Complete each proportion.

15. $\frac{AB}{BD} = \frac{AC}{CE}$

16. $\frac{AD}{DF} = \frac{AE}{EG}$

17. $\frac{DF}{BD} = \frac{EG}{CE}$

18. $\frac{AF}{AB} = \frac{AG}{AC}$

19. $\frac{BD}{CE} = \frac{DF}{EG}$

20. $\frac{AB}{AC} = \frac{BF}{CG}$