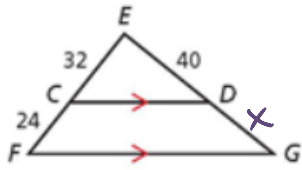


Find the length of each segment.

1.  $\overline{DG}$

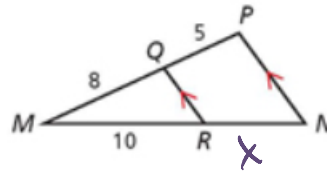


$$\frac{32}{24} = \frac{40}{x}$$

$$32x = 960$$

$$x = 30$$

2.  $\overline{RN}$



$$\frac{8}{5} = \frac{10}{x}$$

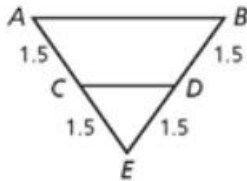
$$8x = 50$$

$$x = 6.25$$

$$\text{or } \frac{25}{4}$$

Verify that the given segments are parallel.

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

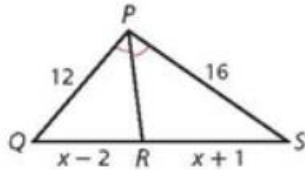


$$\frac{1.5}{1.5} = \frac{1.5}{1.5}$$

$$\frac{1}{1} = \frac{1}{1} \checkmark$$

Find the length of each segment.

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



$$\frac{12}{x-2} = \frac{16}{x+1}$$

$$44 = 4x$$

$$11 = x$$

$$12(x+1) = 16(x-2)$$

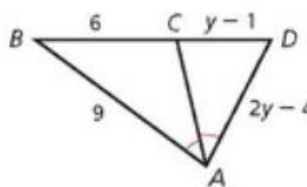
$$12x + 12 = 16x - 32$$

$$-12x + 32 = -12x + 32$$

$$QR = 9$$

$$RS = 12$$

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



$$\frac{7}{6} = \frac{2y-4}{y-1}$$

$$9(y-1) = 6(2y-4)$$

$$9y - 9 = 12y - 24$$

$$-3y + 15 = 0$$

$$15 = 3y$$

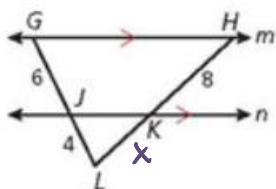
$$5 = y$$

$$CD = 4$$

$$AD = 6$$

Find the length of each segment.

8.  $\overline{KL}$



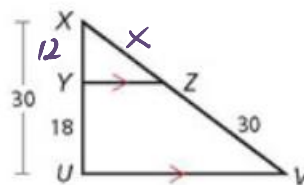
$$\frac{4}{x} = \frac{6}{8}$$

$$32 = 6x$$

$$x = 5.3 \text{ or } \frac{16}{3}$$

9.  $\overline{XZ}$

$$30 - 18$$

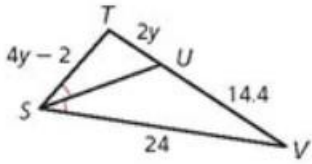


$$\frac{12}{x} = \frac{18}{30}$$

$$360 = 18x$$

$$20 = x$$

14.  $\overline{ST}$  and  $\overline{TU}$



$ST = 10$   
 $TU = 6$

$$\frac{4y - 2}{2y} = \frac{24}{14.4}$$

$$14.4(4y - 2) = 2y(24)$$

$$57.6y - 28.8 = 48y$$

$$\begin{array}{r} -57.6y \qquad \qquad \qquad 57.6y \\ \hline \end{array}$$

$$\frac{-28.8}{-9.6} = \frac{-9.6y}{-9.6}$$

$$3 = y$$