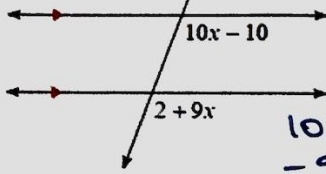


Transversals

1. Name the angle pair. Solve for x.

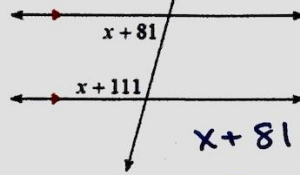
Corresponding Angles



$$\begin{array}{r} 10x - 10 = 2 + 9x \\ -9x \quad -9x \\ \hline x - 10 = 2 \\ +10 \quad +10 \\ \hline x = 12 \end{array}$$

2. Name the angle pair. Solve for x.

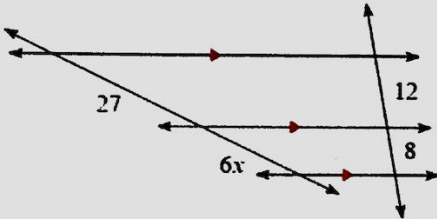
Same Side Interior Angles



$$\begin{array}{r} x + 81 + x + 111 = 180 \\ 2x + 192 = 180 \\ 2x = -12 \\ \hline x = -6 \end{array}$$

Proportional Parts

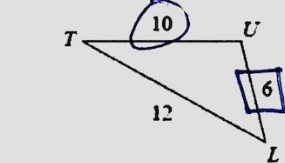
3. Solve for x.



$$\begin{array}{l} \frac{12}{27} = \frac{8}{6x} \text{ cross multiply} \\ 6x(12) = 8(27) \\ 72x = 216 \\ \hline x = 3 \end{array}$$

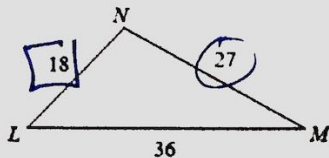
Triangle Similarity: SSS~, SAS~, AA~

4. Are the triangles similar? No



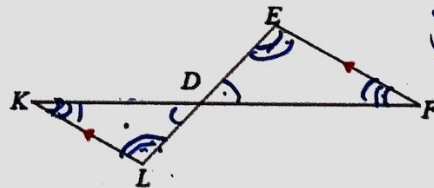
$$\frac{10}{18} \stackrel{?}{=} \frac{10}{27} \stackrel{?}{=} \frac{12}{36}$$

$$\frac{1}{3} \neq \frac{10}{27} \neq \frac{1}{3}$$



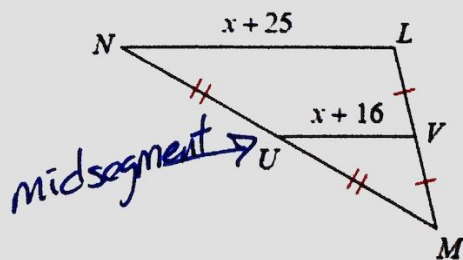
5. Are the triangles similar?

AA~ yes!



Midsegments

6. Solve for x.



$$\begin{array}{r} 2(x + 16) = x + 25 \\ 2x + 32 = x + 25 \\ -x \quad -x \\ \hline x + 32 = 25 \\ -32 \quad -32 \\ \hline x = -7 \end{array}$$