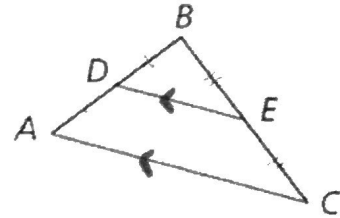Name: **Key**

Theorem 5-4-1 (Triangle Midsegment Theorem)

A midsegment of a triangle is parallel to a side of
the triangle, and its length is half the length of
that side.

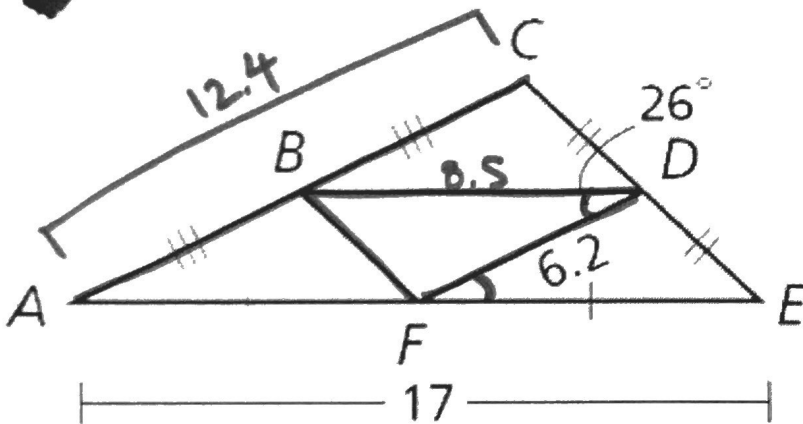$$\overline{DE} \parallel \overline{AC}, \ DE = \frac{1}{2}AC$$

Because there are **parallel lines** look
for either:

Alt. Int ∠'s (≅)

Corresponding ∠'s (≅)

To determine the side lengths
you either:

multiply by 2

Divide by 2

(it just depends which side you
have information for (the
midsegment or side of the
triangle))

Using the example above, find the following:
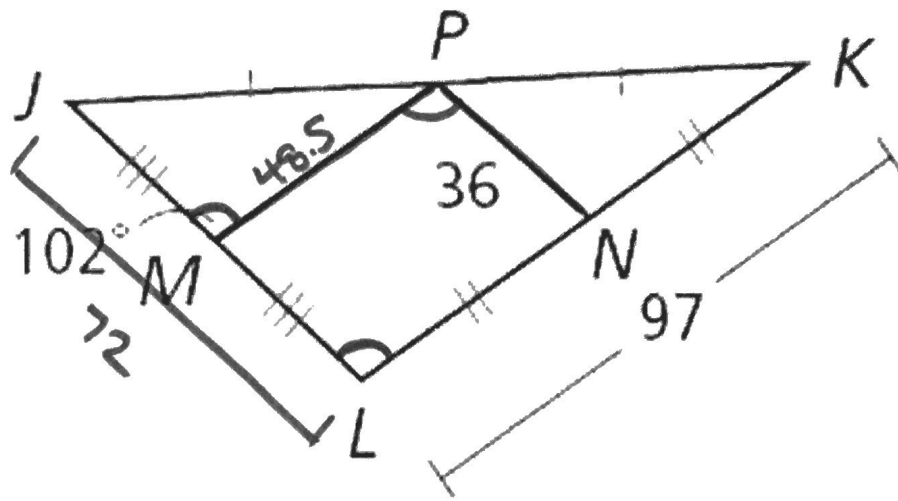
1. BD=

$$\frac{17}{2} = \boxed{8.5}$$

2. BF=

Not enough
info

3. AC=

6.2·2=

$$\boxed{12.4}$$

4. m∠DFE =

$$\boxed{26°}$$

5. MP=

$\frac{97}{2} = \boxed{48.5}$

6. m∠JLK=

$\boxed{102°}$

7. JL=

$36 \cdot 2 = \boxed{72}$

8. m∠MPN =

$\boxed{102°}$

9. Find the value of n.

$2(n+14) = 3n+12$

$2n+28 = 3n+12$

$\underline{-2n \qquad\qquad -2n}$

$28 = n+12$

$\underline{-12 \qquad\quad -12} \quad \boxed{n=16}$
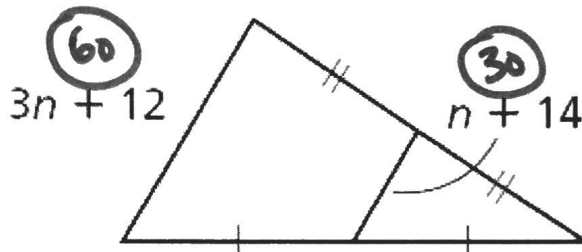
10. △XYZ is the midsegment triangle of △WUV. What is the perimeter of △XYZ?

$4+4.5+3 = \boxed{11.5}$