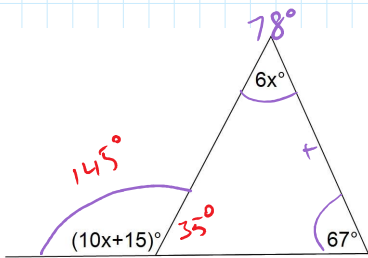


Test Review!

Find the measures of the angles



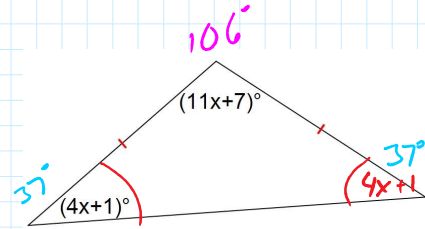
$$\begin{aligned}
 10x+15 &= 6x+67 \\
 -6x & \quad -6x \\
 4x+15 &= 67 \\
 -15 & \quad -15 \\
 4x &= 52 \\
 x &= 13
 \end{aligned}$$

$$\begin{aligned}
 6x; x=13 \\
 6 \cdot 13 \\
 78
 \end{aligned}$$

$$\begin{aligned}
 10x+15; x=13 \\
 10 \cdot 13+15 \\
 130+15 \\
 145
 \end{aligned}$$

$$\begin{aligned}
 180 &= 6x+67+180+(10x+15) \\
 180 &= 6x+67+180+10x+15 \\
 180 &= -4x+247-15 \\
 180 &= -4x+232 \\
 -232 & \quad -232
 \end{aligned}$$

$$\begin{aligned}
 -4x &= 52 \\
 \frac{-4x}{-4} &= \frac{52}{-4} \\
 x &= 13
 \end{aligned}$$



$$11x+7 + 4x+1 + 4x+1 = 180$$

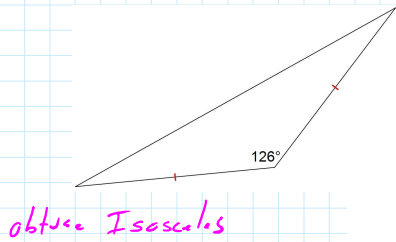
$$\begin{aligned}
 19x+9 &= 180 \\
 -9 & \quad -9 \\
 19x &= 171 \\
 \frac{19x}{19} &= \frac{171}{19} \\
 x &= 9
 \end{aligned}$$

$$\begin{aligned}
 4x+1; x=9 \\
 4 \cdot 9+1 \\
 36+1 \\
 37
 \end{aligned}$$

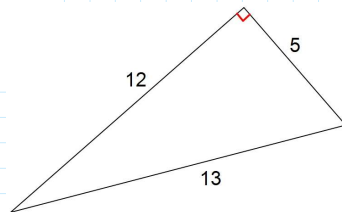
$$\begin{aligned}
 11 \cdot 9+7; x=9 \\
 11 \cdot 9+7 \\
 99+7 \\
 106
 \end{aligned}$$

Right scalene

Classifying triangles



obtuse Isosceles

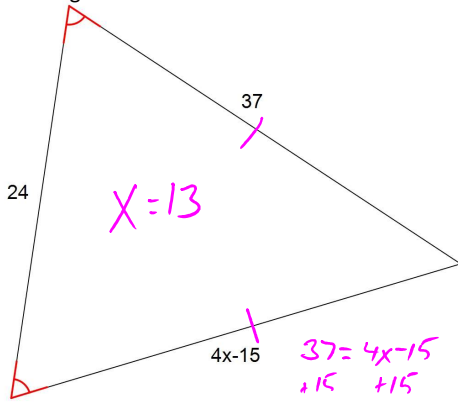


<u>Angles</u>	<u>Sides</u>
Acute	scalene
Obtuse	isosceles
right	equilateral
equilateral	

Solving for x



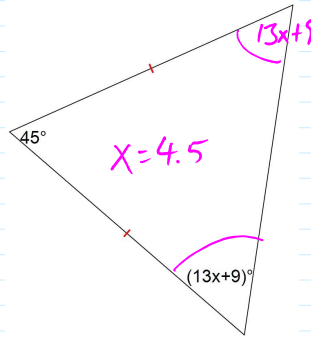
Solving for x



$$37 = 4x - 15$$

$$+15 \quad +15$$

$$\frac{52}{4} = \frac{4x}{4} \quad X = 13$$



$$45 + 13x + 9 + 13x + 9 = 180$$

$$26x + 63 = 180$$

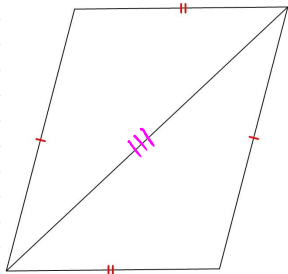
$$-63 \quad -63$$

$$\frac{26x}{26} = \frac{117}{26}$$

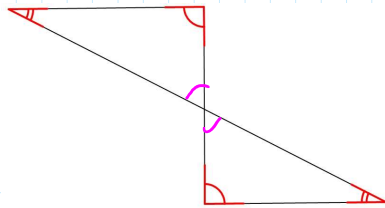
$$X = 4.5$$

Congruent or not, what information is needed?

what then?



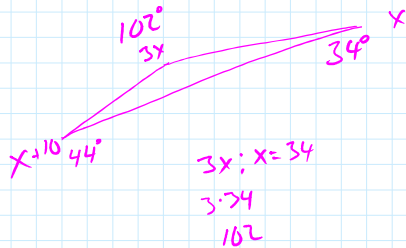
yes, congruent, SSS



Not congruent need at least 1 side

Word Problems

One of the acute angles of an obtuse triangle is ten more than the other acute angle while the obtuse angle is three times the smallest acute angle. Find the measures of the three angles.



$$3x; X = 34$$

$$3 \cdot 34$$

$$102$$

$$3x + x + x + 10 = 180$$

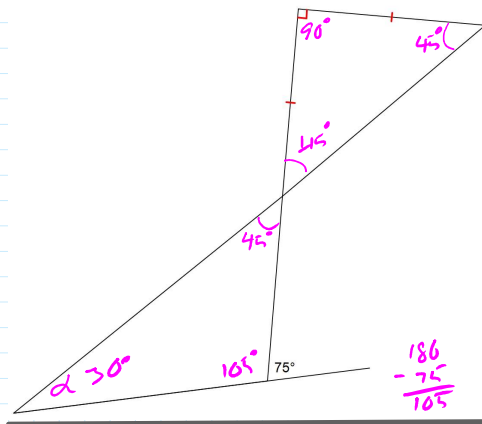
$$5x + 10 = 180$$

$$-10 \quad -10$$

$$\frac{5x}{5} = \frac{170}{5}$$

$$X = 34$$

Find the missing angle measurements.

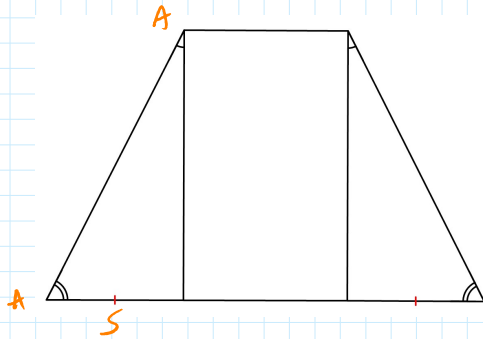


$$\begin{aligned}
 45 + 105 + \alpha &= 180 \\
 150 + \alpha &= 180 \\
 -150 &-150 \\
 \alpha &= 30
 \end{aligned}$$

$$\begin{aligned}
 180 \\
 -75 \\
 \hline
 105
 \end{aligned}$$

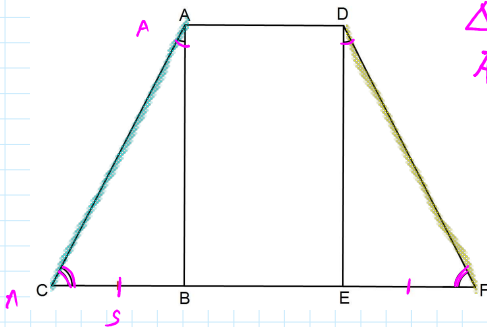
Are the triangles congruent? If so say what theorem, if not just put not congruent.

yes, SAA



Proof:
Prove $\overline{AC} \cong \overline{DF}$

$\angle A \cong \angle D$ given
 $\angle C \cong \angle F$ given
 $\overline{BC} \cong \overline{EF}$ given
 $\triangle ABC \cong \triangle DEF$ SAA
 $\overline{AC} \cong \overline{DF}$ CPCTC



24 questions total. Study!!!!
