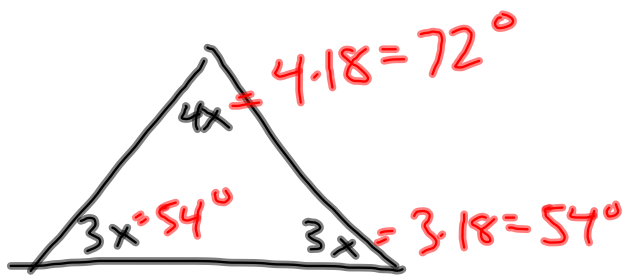


$$3x + 2 + 5x + 5 = 180$$
$$10x + 7 = 180$$
$$\begin{array}{r} 10x + 7 = 180 \\ -7 \quad -7 \\ \hline \end{array}$$

$$\frac{10x + 173}{10} \quad x = 17.3$$

$$17.3 \times 5 + 2 =$$
$$(88.5)$$

12.

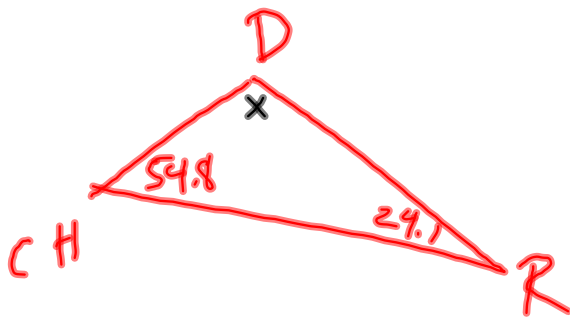


$$3x + 4x + 3x = 180$$

$$\frac{10x}{10} = \frac{180}{10}$$

$$x = 18$$

1.



$$x + 54.8 + 24.1 = 180$$

$$x + 78.9 = 180$$

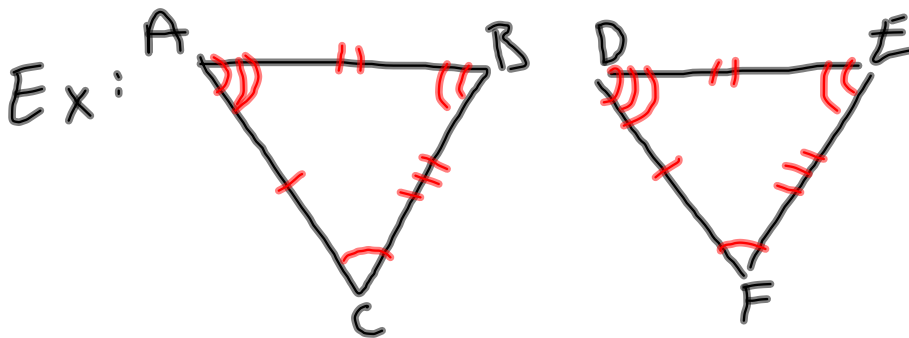
$$- 78.9 = -78.9$$

$$x = 101.1^\circ$$

0-4+
5-8✓
9✓

4.3 Congruent Triangles

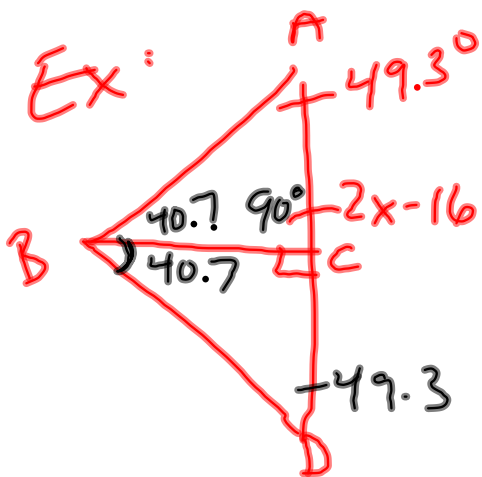
- geometric figures are \cong , if they have the same size + shape.
- for Δ 's to be \cong , the corresponding sides + angles must be congruent.



Corr. \angle 's : $\angle C \cong \angle F$, $\angle B \cong \angle E$, $\angle A \cong \angle D$

Corr. sides: $\overline{AC} \cong \overline{DF}$, $\overline{AB} \cong \overline{DE}$, $\overline{CB} \cong \overline{FE}$

$$\triangle ABC \cong \triangle DEF$$



$$180 - (49.3 + 90)$$

$$40.7$$

Find x , $m\angle DBL$
 $\triangle ABC \cong \triangle DBL$

$$\begin{array}{r} 2x - 16 = 90 \\ +16 \quad +16 \\ \hline 2x = 106 \\ \frac{2x}{2} = \frac{106}{2} \end{array}$$

$$x = 53$$

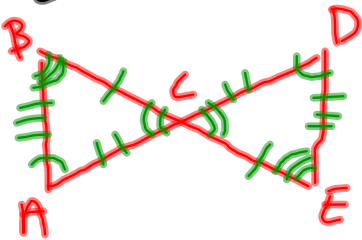
Proving Δ 's \cong

Ex: Given: \overline{AD} bisects \overline{BE}

\overline{BE} bisects \overline{AD}

$\overline{AB} \cong \overline{DE}$

$\angle A \cong \angle D$



Prove: $\Delta ABC \cong \Delta DEC$

Statement	Reason
1. \overline{AD} bisects \overline{BE}	1. Given
2. $\overline{BC} \cong \overline{CE}$	2. Defn of bisector
3. \overline{BE} bisects \overline{AD}	3. Given
4. $\overline{AC} \cong \overline{CD}$	4. Defn of bisector
5. $\angle A \cong \angle D$	5. Given
6. $\overline{AB} \cong \overline{DE}$	6. Given
7. $\angle BCA \cong \angle DCE$	7. Vertical \angle 's theorem
8. $\angle B \cong \angle E$	8. Third \angle 's theorem
9. $\Delta ABC \cong \Delta DEC$	9. Defn of \cong Δ 's.

Hw: p. 234
2-30 even