

4.1 PRACTICE

Draw the following. Mark the picture!!!		
1. Obtuse Isosceles Triangle	2. Acute Equilateral Triangle	3. Right Scalene Triangle

Find x.

4.

$$x = 72$$

5.

$$2x - 5 = 5x + 16$$

$$\begin{array}{r} 2x - 5 \\ -2x \quad \quad \\ \hline -5 = 3x + 16 \\ -16 \quad \quad \quad \\ \hline -21 = 3x \\ \frac{-21}{3} = \frac{3x}{3} \\ \hline -7 = x \end{array}$$

6.

$$x^2 + 3x = 18$$

$$\begin{array}{r} x^2 + 3x = 18 \\ -18 \quad -18 \\ \hline x^2 + 3x - 18 = 0 \\ (x + 6)(x - 3) = 0 \\ \begin{array}{l} x + 6 = 0 \quad x - 3 = 0 \\ -6 \quad -6 \quad +3 \quad +3 \\ \hline x = -6 \quad x = 3 \end{array} \end{array}$$

7.

$$\begin{array}{r} 66 \\ +66 \\ \hline 132 \end{array}$$

$$\begin{array}{r} 180 \\ -132 \\ \hline 48 \end{array}$$

$$x = 48$$

8.

$$x^2 - 4x = 12$$

$$\begin{array}{r} x^2 - 4x = 12 \\ -12 \quad -12 \\ \hline x^2 - 4x - 12 = 0 \\ (x - 6)(x + 2) = 0 \\ \begin{array}{l} x - 6 = 0 \quad x + 2 = 0 \\ +6 \quad +6 \quad -2 \quad -2 \\ \hline x = 6 \quad x = -2 \end{array} \end{array}$$

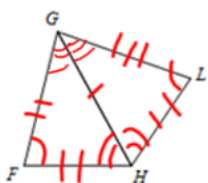
9.

$$x^2 - 5x = 24$$

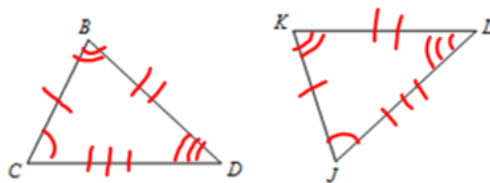
$$\begin{array}{r} x^2 - 5x = 24 \\ -24 \quad -24 \\ \hline x^2 - 5x - 24 = 0 \\ (x - 8)(x + 3) = 0 \\ \begin{array}{l} x - 8 = 0 \quad x + 3 = 0 \\ +8 \quad +8 \quad -3 \quad -3 \\ \hline x = 8 \quad x = -3 \end{array} \end{array}$$

Mark the angles and sides of each pair of triangles to indicate that they are congruent.

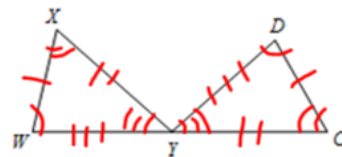
10. $\triangle GHF \cong \triangle GHL$



11. $\triangle CBD \cong \triangle JKL$

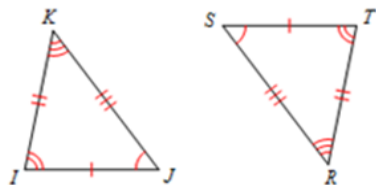


12. $\triangle WXY \cong \triangle DCY$



Write a statement indicating that the triangle pair is congruent. ORDER IS IMPORTANT!!!

13.



$$\triangle JIK \cong \triangle STR$$

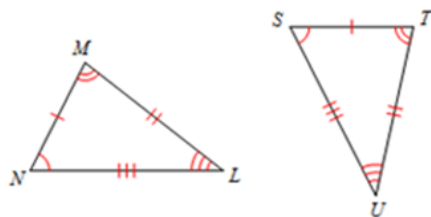
OR

$$\triangle IKT \cong \triangle TRS$$

OR

$$\triangle KJI \cong \triangle RST$$

14.



$$\triangle NML \cong \triangle STU$$

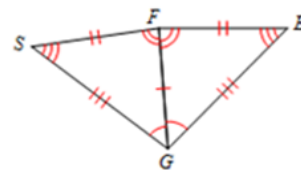
OR

$$\triangle MLN \cong \triangle TUS$$

OR

$$\triangle LNM \cong \triangle STU$$

15.



$$\triangle FGS \cong \triangle FGE$$

OR

$$\triangle FSG \cong \triangle FEG$$

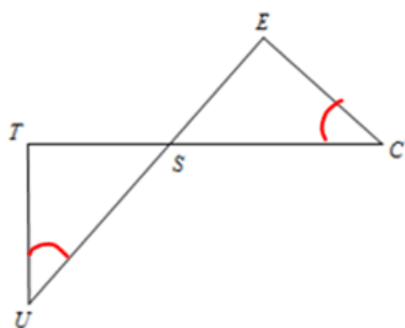
OR

$$\triangle SGF \cong \triangle EGF$$

Complete each congruence statement.

16.

$$\triangle SUT \cong \triangle SCE$$

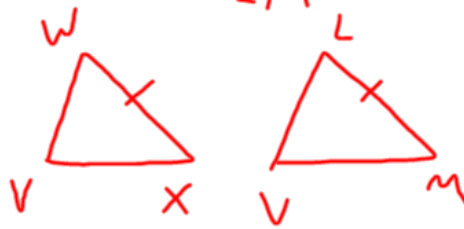


$$\angle U \cong \angle C$$

17.

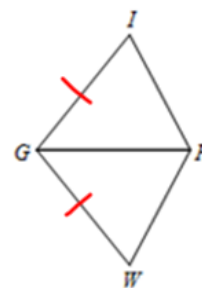
$$\triangle VWX \cong \triangle LM$$

$$\overline{WX} \cong ? \overline{LM}$$



18.

$$\triangle HGI \cong \triangle HGW$$



$$\overline{GI} \cong ? \overline{GW}$$