Spiral Review:

1. Write the equation of the line if m=1/2, and passes through (-4, 7)

$y-y_1=m(x-x_1)$

$y-7=\frac{1}{2}(x+4)$

$y-7=\frac{1}{2}x+2$

$+7 \quad +7$

$y=\frac{1}{2}x+9$

2. Find the distance between (8, -3) and (0, 1).

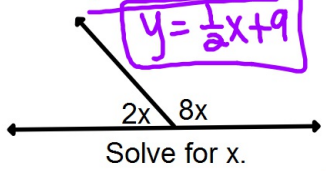
$(x_1, y_1) \quad (x_2, y_2)$

$d=\sqrt{(0-8)^2+(1+3)^2}$

$=\sqrt{(-8)^2+(4)^2}$

$=\sqrt{64+16}=\sqrt{80}$

3.



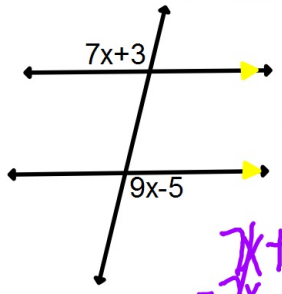
Solve for x.

$2x+8x=180$

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

$x=18$

4.



Solve for x.

$7x+3=9x-5$

$-7x \quad -7x$

$3=2x-5$

$+5 \quad +5$

$8=2x$

$\frac{8}{2}=\frac{2x}{2}$

$x=4$

Review 4.1-4.3

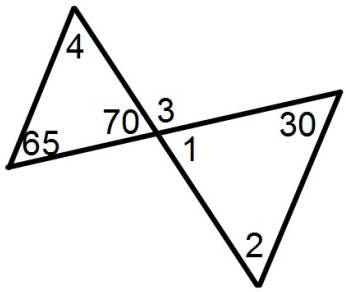
1. Write the three ways to name a triangle by sides:

1)
2)
3)

2. Write the four ways to name a triangle by angles.

1)
2)
3)
4)

3.



Find the numbered angles.

4. Write all the pairs of congruent corresponding parts for $\Delta BIG \cong \Delta DOG$.

$\overline{BI} \cong \overline{DO}$ $\quad \angle B \cong \angle D$

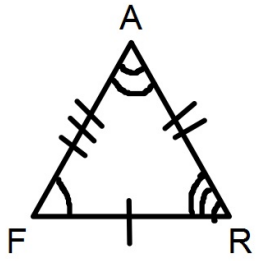
$\overline{IG} \cong \overline{OG}$ $\quad \angle I \cong \angle O$

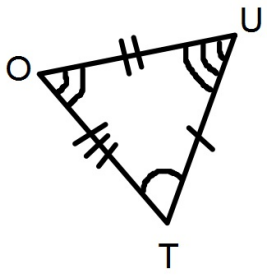
$\overline{BG} \cong \overline{DG}$ $\quad \angle G \cong \angle G$

p.264 4.4 Proving Triangles Congruent by SSS and SAS

In section 4.3, you proved that two triangles were congruent by showing that all six pairs of corresponding parts were congruent.

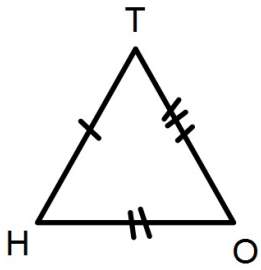
Show me what that mean!

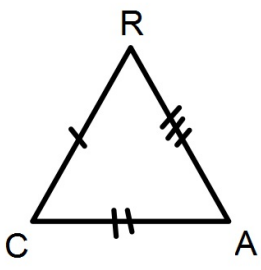




****It is possible to prove two triangles congruent with <u>fewer</u> pairs!****

Side-Side-Side (SSS) Congruence:

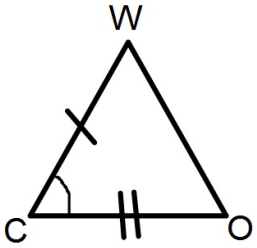


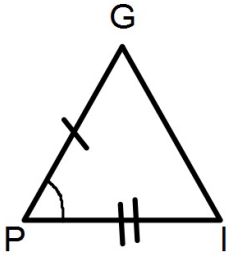


If:
1) $\overline{HT} \cong \overline{CR}$
2) $\overline{HO} \cong \overline{CA}$
3) $\overline{OT} \cong \overline{AR}$

Then: $\Delta HOT \cong \Delta CAR$ by SSS

Side-Angle-Side (SAS) Congruence:



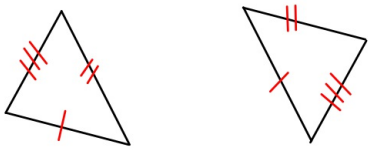


If:
1) $\overline{WC} \cong \overline{GP}$
2) $\angle C \cong \angle P$
3) $\overline{OC} \cong \overline{IP}$

Then: $\Delta COW \cong \Delta PIG$ by SAS

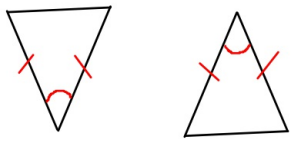
Example 1: Determine which postulate can be used to prove that the triangles are congruent. If it is not possible, write not possible.

a.)



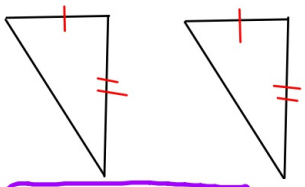
SSS

b.)



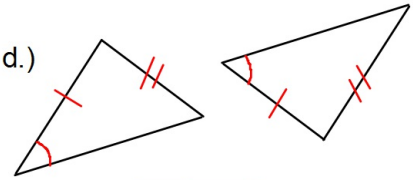
SAS

c.)



not possible

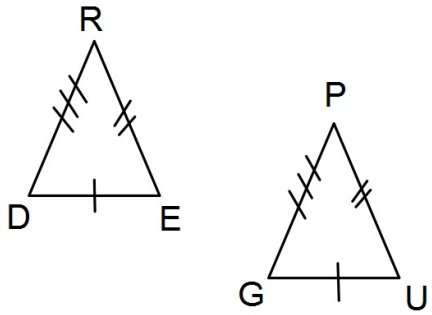
d.)



not possible

Example 2: Prove the following triangles are congruent.

a.)



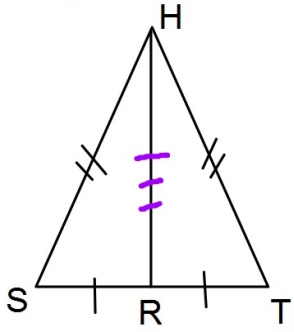
1) $\overline{DE} \cong \overline{GU}$

2) $\overline{ER} \cong \overline{UP}$

3) $\overline{DR} \cong \overline{GP}$

$\Delta DER \cong \Delta GUP$ by SSS

b.)



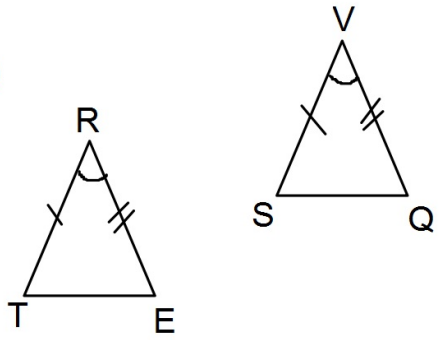
1) $\overline{SR} \cong \overline{RT}$

2) $\overline{SH} \cong \overline{TH}$

3) $\overline{HR} \cong \overline{HR}$

$\Delta SRH \cong \Delta TRH$ by SSS

c.)



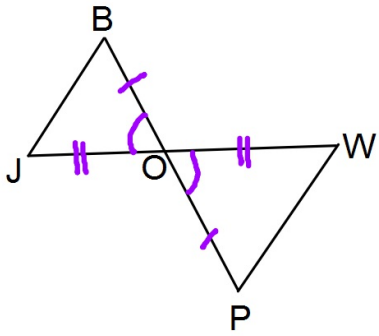
1) $\overline{TR} \cong \overline{SV}$

2) $\angle R \cong \angle V$

3) $\overline{RE} \cong \overline{VQ}$

$\Delta TRE \cong \Delta SVQ$ by SAS

d.)



O is the midpoint of $\overline{JW}$ and $\overline{BP}$.

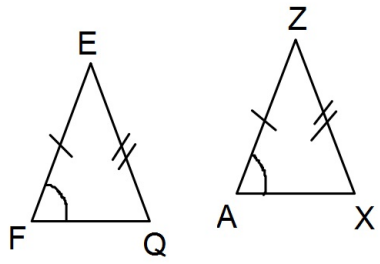
1) $\overline{OB} \cong \overline{OP}$

2) $\overline{JO} \cong \overline{WO}$

3) $\angle BOJ \cong \angle POW$

$\Delta JOB \cong \Delta WOP$ by SAS

e.)



1) $\overline{FE} \cong \overline{AZ}$

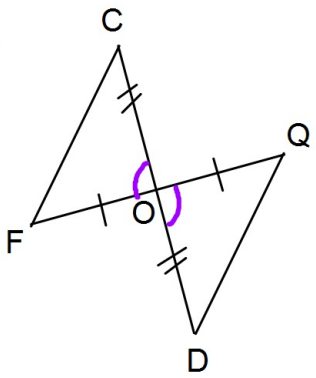
2) $\angle F \cong \angle A$

3) $\overline{QE} \cong \overline{XZ}$

Δ___ $\cong \Delta$___ by ____

not possible

f.)



1) $\overline{FO} \cong \overline{QO}$

2) $\overline{CO} \cong \overline{DO}$

3) $\angle COF \cong \angle DOQ$

$\Delta COF \cong \Delta DOQ$ by SAS

Turn - in:
Practice 4.4

Homework:
worksheet 4.4