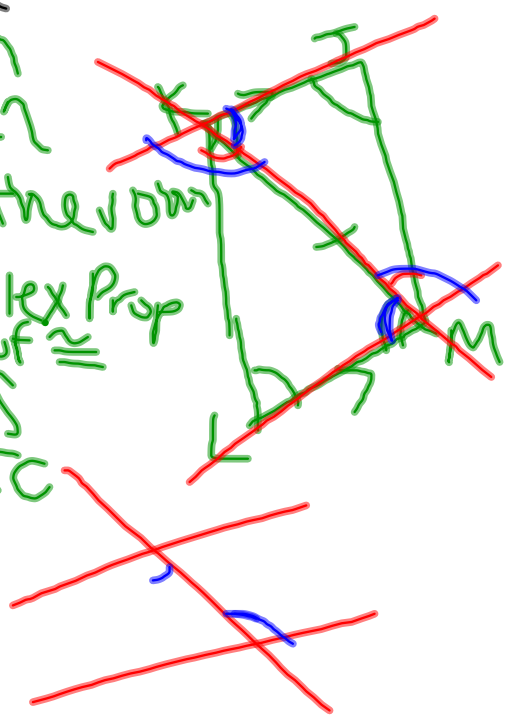


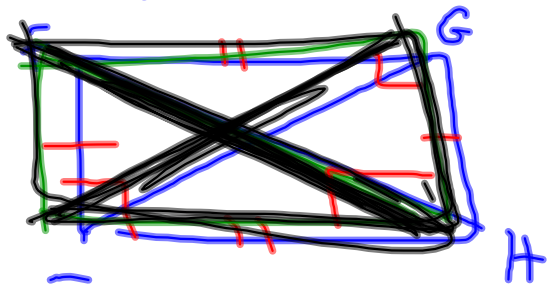
Statements | reason

1. $\angle L \cong \angle J$
2. $\overline{LJ} \cong \overline{LM}$
3. $\angle J \cong \angle M \Rightarrow \angle L \cong \angle K$
4. $\overline{MK} \cong \overline{MK}$
5. $\triangle LKM \cong \triangle JMK$
6. $\angle LKM \cong \angle JMK$

1. given
2. given
3. A.A. theorem
4. Reflex Prop of \cong
5. A.A.S
6. C.P.C.T.C



3. Given: $FGHI$ is a rectangle
 Prove: Diagonals have equal lengths

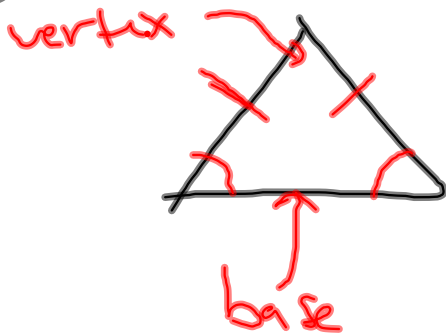


Statement	Reason
1. $FGHI$ is a rect.	1. Given
2. $\overline{FI} \cong \overline{GH}$	2. Defn of rect.
3. $\overline{FG} \cong \overline{IH}$	3. Defn of rect
4. $\angle F \cong \angle H$	4. Defn of rect
5. $\triangle FGH \cong \triangle IGH$	5. Pt. 2 \cong thm
6. $\triangle FGH \cong \triangle IGH$	6. SAS
7. $\overline{FI} \cong \overline{IH}$	7. CPCTC

0-57
 6-10✓
 115-

4.8 Isosceles & Equilateral Triangles

Isosceles Triangles:



$2 \cong$ sides are legs

$2 \cong$ angles base angles

Isosceles Δ thm: if 2 sides of a Δ are \cong , then the \angle 's opposite those sides are \cong .

Converse of Isosceles Δ thm: if 2 \angle 's of a Δ are \cong , then the sides opposite those angles are also \cong .

Ex: Find each measure:



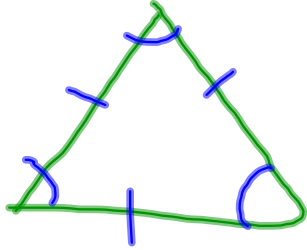
$$\begin{array}{r} 180 = 22 + 2x \\ -22 \quad -22 \\ \hline \end{array}$$

$$\frac{158}{2} = \frac{2x}{2}$$

$$x = 79^\circ$$

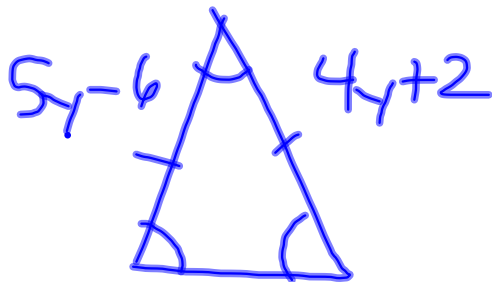
Find $m\angle D$ + $m\angle F$

Equilateral Δ thm: If a Δ is equilateral, then it is equiangular.



Converse of Equilateral Δ thm: If a Δ is equiangular, then it is equilateral.

Ex: Find y



$$\begin{array}{r} 5y-6 = 4y+2 \\ -4y \quad -4y \\ \hline \end{array}$$

$$\begin{array}{r} y-6 = 2 \\ +6 \quad +6 \\ \hline \end{array}$$

$y=8$

HW: p. 276

4-28 even,

odds extra credit