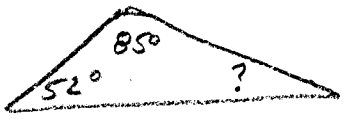
BE - Geometry 1 | Tuesday 10-5-10

Through points (3,6), (9,-4)

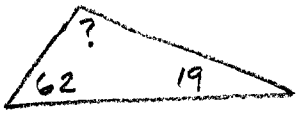
1. Find the equation of the line in Slope-Intercept form
2. Find the equation of the perpendicular to the line in #1 through (-1, 4).
3. Graph both lines in 1 and 2

Homework Review Pg. 188-189 #3-10

③ 

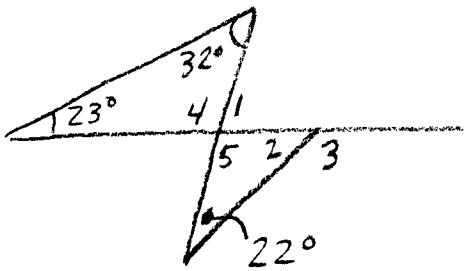
Missing $\angle \Rightarrow 180-(85+52)$

$180-137=\boxed{43°}$

④ 

Missing $\angle \Rightarrow 180-(62+19)$

$180-81=\boxed{99°}$



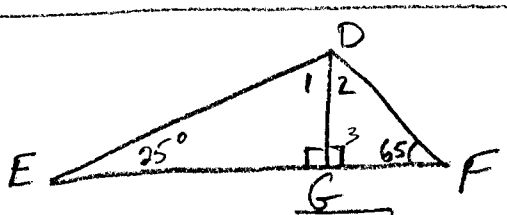
⑤ $m\angle 1=?$ $m\angle 4=180-(23+32)=180-55=125°$

$\therefore m\angle 1=180-125=\boxed{55° = m\angle 1}$

⑥ $m\angle 2=?$ $m\angle 5=180-55=125°$

$\therefore m\angle 2=180-(125+22)=180-147=\boxed{33°}$ $\boxed{m\angle 2}$

⑦ $m\angle 3=?$ $m\angle 3=180-33=\boxed{147°}$



⑧ $m\angle 1=?$ $90-25=\boxed{65°}$

⑨ $m\angle 2=?$ $90-65=\boxed{25°}$

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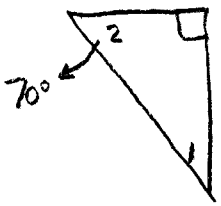
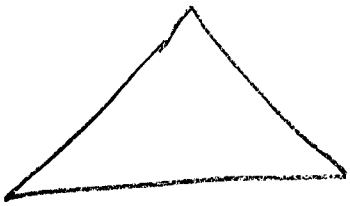
⑩ 

$m\angle 1=90-70=\boxed{20°}$

Ch. 4-1 Classifying Triangles

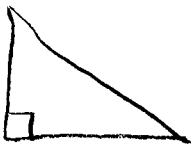
Vocabulary (Pg. 178)

ACUTE ANGLE ⇒ less than 90°
obtuse Angle ⇒ greater than 90°
Right Angle ⇒ EQUAL 90°



ACUTE △
ALL ∠s ACUTE

OBTUSE △
ONE ∠ OBTUSE



Right △
ONE ∠ = 90°

Exercise: USING A protractor to measure Angles.

(Pg. 30)

Exercise – Need protractor → See NEXT Pg.
(Pg 184) scissors
paper

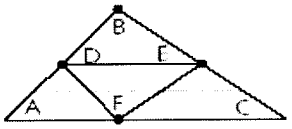
Homework: Pg 189 # 11-27 ODD

Angles of Triangles

Page 184

There are special relationships among the angles of a triangle.

Activity 1 **Find the relationship among the measures of the interior angles of a triangle.**



Step 1 Draw an obtuse triangle and cut it out. Label the vertices A, B, and C.

Step 2 Find the midpoint of $\overline{AB}$ by matching A to B. Label this point D.

Step 3 Find the midpoint of $\overline{BC}$ by matching B to C. Label this point E.

Step 4 Draw $\overline{DE}$.

Step 5 Fold $\triangle ABC$ along $\overline{DE}$. Label the point where B touches $\overline{AC}$ as F.

Step 6 Draw $\overline{DF}$ and $\overline{FE}$. Measure each angle.

Analyze the Model

Describe the relationship between each pair.

1. $\angle A$ and $\angle DFA$ **2.** $\angle B$ and $\angle DFE$ **3.** $\angle C$ and $\angle EFC$

4. What is the sum of the measures of $\angle DFA$, $\angle DFE$, and $\angle EFC$?

5. What is the sum of the measures of $\angle A$, $\angle B$, and $\angle C$?

6. Make a conjecture about the sum of the measures of the angles of any triangle.

In the figure at the right, $\angle 4$ is called an *exterior angle* of the triangle. $\angle 1$ and $\angle 2$ are the *remote interior angles* of $\angle 4$.