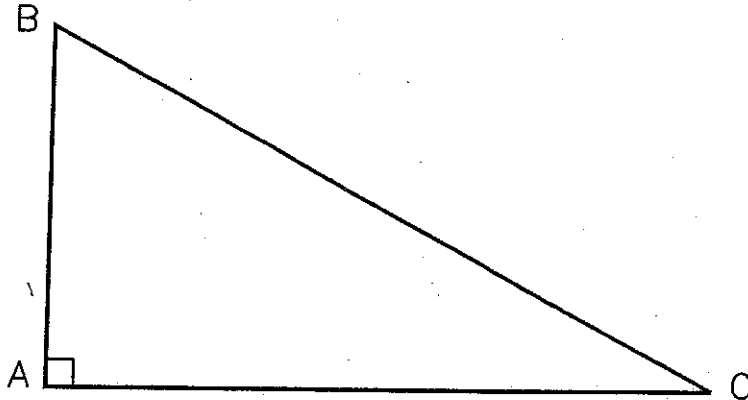


# TRIG-STAR PROBLEM LOCAL CONTEST

**TRIGSTAR**  
**#3**

PRINT NAME: \_\_\_\_\_



KNOWN: DISTANCE AC = 592.25      DISTANCE BC = 783.15

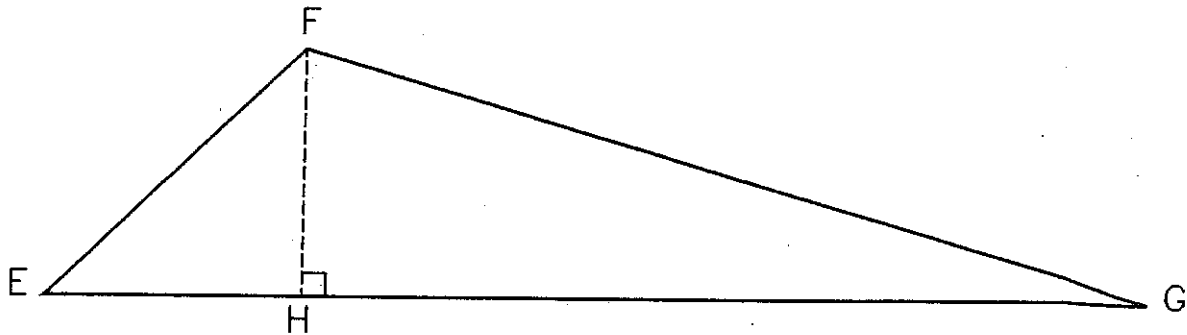
FIND:  $\angle$  ACB = \_\_\_\_\_ (5 POINTS)

DISTANCE AB = \_\_\_\_\_ (5 POINTS)

**REQUIRED ANSWER FORMAT**

DISTANCES: NEAREST HUNDREDTH  
ANGLES: DEGREES-MINUTES-SECONDS  
TO THE NEAREST SECOND

# TRIG-STAR PROBLEM LOCAL CONTEST



KNOWN: DISTANCE EF = 343.12     $\angle$  EFG = 119°47'45"     $\angle$  FEG = 39°13'50"

FIND:  $\angle$  EGF = \_\_\_\_\_ (6 POINTS)

DISTANCE EH = \_\_\_\_\_ (6 POINTS)

DISTANCE FH = \_\_\_\_\_ (6 POINTS)

DISTANCE FG = \_\_\_\_\_ (6 POINTS)

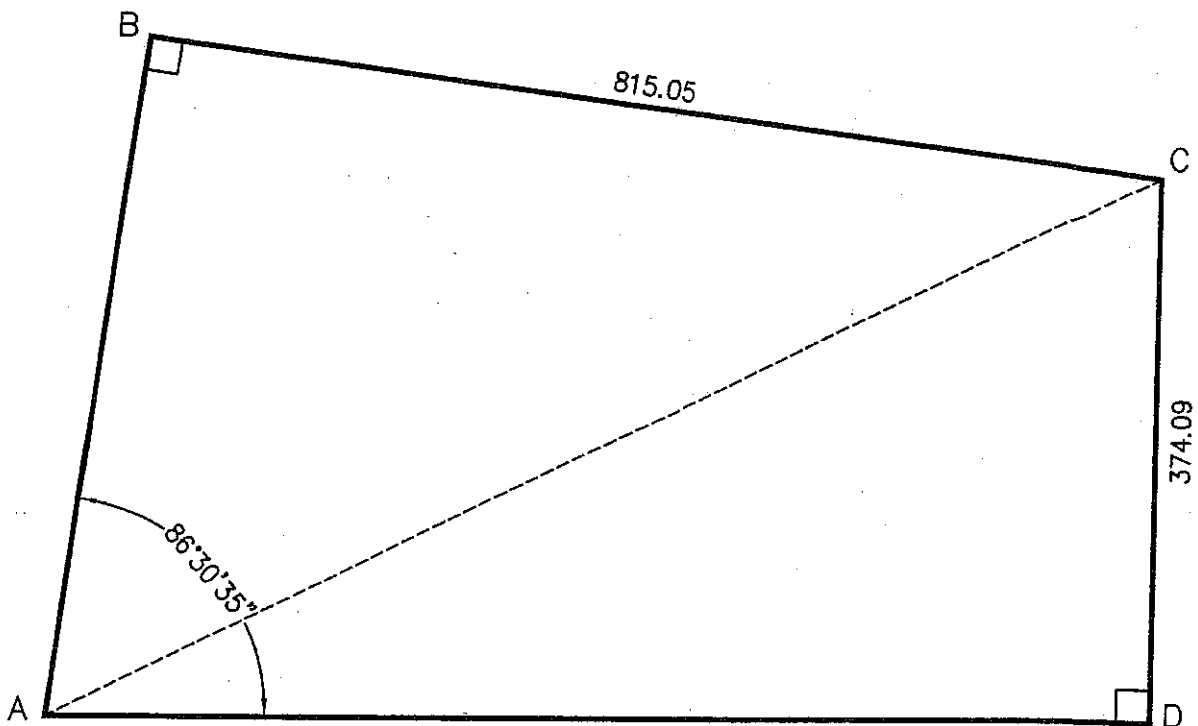
DISTANCE GH = \_\_\_\_\_ (6 POINTS)

**REQUIRED ANSWER FORMAT**

DISTANCES: NEAREST HUNDREDTH  
ANGLES: DEGREES-MINUTES-SECONDS  
TO THE NEAREST SECOND

PAGE TOTAL: \_\_\_\_\_ POINTS

# TRIG-STAR PROBLEM LOCAL CONTEST



KNOWN: DISTANCE BC = 815.05    DISTANCE CD = 374.09  
 $\angle$  BAD = 86°30'35"

FIND: DISTANCE AB = \_\_\_\_\_ (10 POINTS)  
DISTANCE AD = \_\_\_\_\_ (10 POINTS)  
DISTANCE AC = \_\_\_\_\_ (10 POINTS)

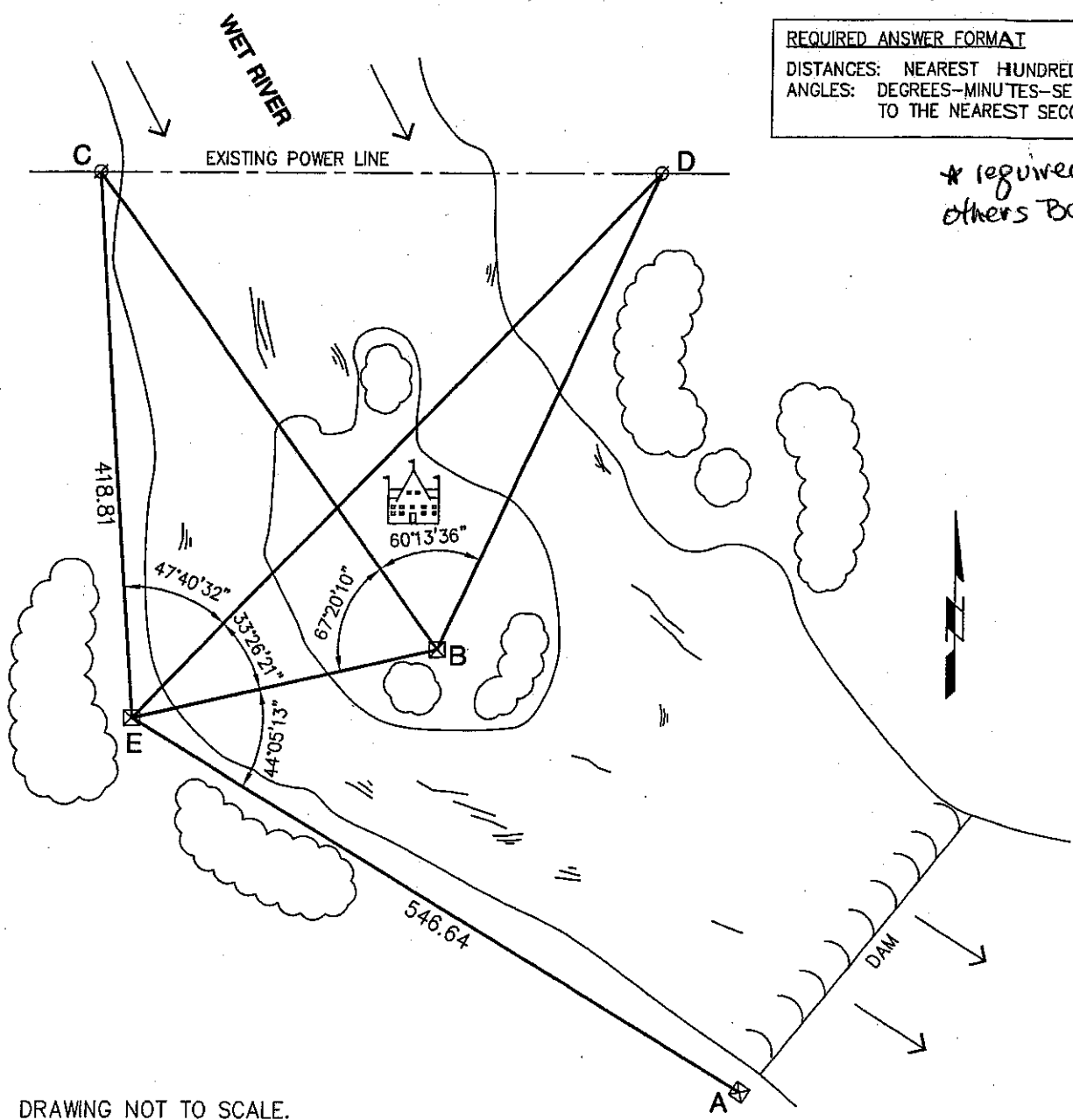
REQUIRED ANSWER FORMAT  
DISTANCES: NEAREST HUNDREDTH

PAGE TOTAL: \_\_\_\_\_ POINTS

# TRIG-STAR PROBLEM 3 LOCAL CONTEST

**REQUIRED ANSWER FORMAT**  
 DISTANCES: NEAREST HUNDREDTH  
 ANGLES: DEGREES-MINUTES-SECONDS  
 TO THE NEAREST SECOND

*\* required  
 others BONUS!*



DRAWING NOT TO SCALE.

A GROUP OF INVESTORS HAS PLANS TO BUILD A RESORT ON AN ISLAND IN THE WET RIVER. THE ELECTRIC COMPANY WILL SUPPLY POWER TO A TRANSFORMER STATION (Point "B") AT THE RESORT BY CONSTRUCTING A GENERATING PLANT (Point "A") AT THE DAM DOWNSTREAM OF THE RESORT. THE TRANSFORMER STATION WILL NEED TO BE CONNECTED TO AN EXISTING POWER LINE WHICH CROSSES THE RIVER JUST NORTH OF THE ISLAND. USING THE INFORMATION IN THE DIAGRAM THAT WAS OBTAINED BY A SURVEY CREW; FIND THE FOLLOWING DIMENSIONS:

- FIND: DISTANCE AB = \_\_\_\_\_ (10 POINTS) \*
- DISTANCE BC = \_\_\_\_\_ (10 POINTS) \*
- DISTANCE BD = \_\_\_\_\_ (10 POINTS) \*

PAGE TOTAL: \_\_\_\_\_ POINTS

# TRIG-STAR ANSWER KEY LOCAL CONTEST

PAGE 1

$$\sphericalangle ACB = 40^{\circ}51'58''$$

$$\text{DISTANCE AB} = 512.41$$

PAGE 1

$$\sphericalangle EGF = 20^{\circ}58'25''$$

$$\text{DISTANCE EH} = 265.78$$

$$\text{DISTANCE FH} = 217.00$$

$$\text{DISTANCE FG} = 606.26$$

$$\text{DISTANCE GH} = 566.09$$

PAGE 2

$$\text{DISTANCE AB} = 424.50$$

$$\text{DISTANCE AD} = 839.38$$

$$\text{DISTANCE AC} = 918.97$$

PAGE 3

$$\text{DISTANCE AB} = 410.76$$

$$\text{DISTANCE BC} = 448.41$$

$$\text{DISTANCE BD} = 401.98$$

2015-2014

2002-2002