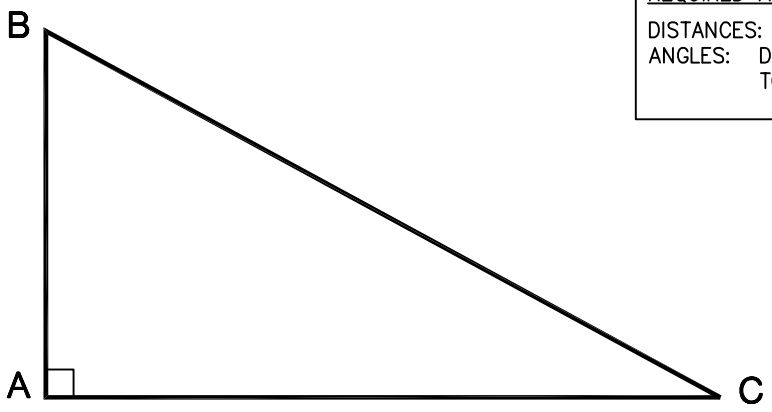
TRIG-STAR PROBLEM LOCAL CONTEST



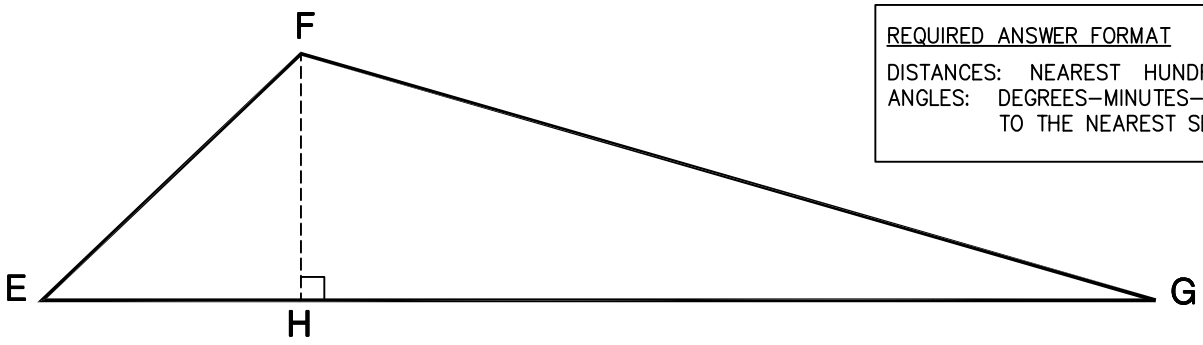
REQUIRED ANSWER FORMAT
DISTANCES: NEAREST HUNDREDTH
ANGLES: DEGREES–MINUTES–SECONDS TO THE NEAREST SECOND

KNOWN: DISTANCE AB = 56.15 DISTANCE BC = 116.25

FIND: ∠CBA = _____ (5 POINTS)

DISTANCE AC = _____ (5 POINTS)

TRIG-STAR PROBLEM LOCAL CONTEST



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

KNOWN: DISTANCE FG = 133.95 ∠GFE = 119°29'56" ∠FGE = 16°14'55"

FIND: ∠FEG = _____ (6 POINTS)

DISTANCE FH = _____ (6 POINTS)

DISTANCE EF = _____ (6 POINTS)

DISTANCE GH = _____ (6 POINTS)

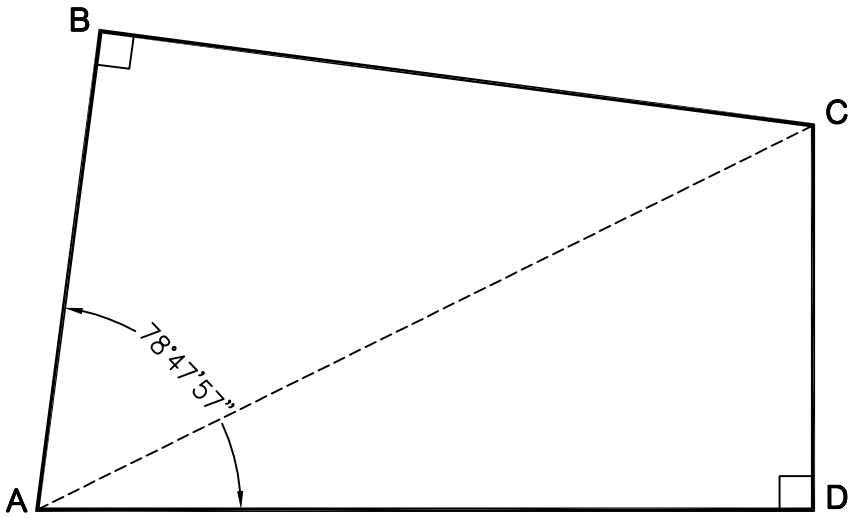
DISTANCE EH = _____ (6 POINTS)

PAGE TOTAL: _____ POINTS

TRIG-STAR PROBLEM LOCAL CONTEST

REQUIRED ANSWER FORMAT

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



KNOWN: DISTANCE BC = 95.73 DISTANCE CD = 50.15
$\measuredangle$ BAD = 78°47'57"

FIND: DISTANCE AB = _____ (10 POINTS)

DISTANCE AD = _____ (10 POINTS)

DISTANCE AC = _____ (10 POINTS)

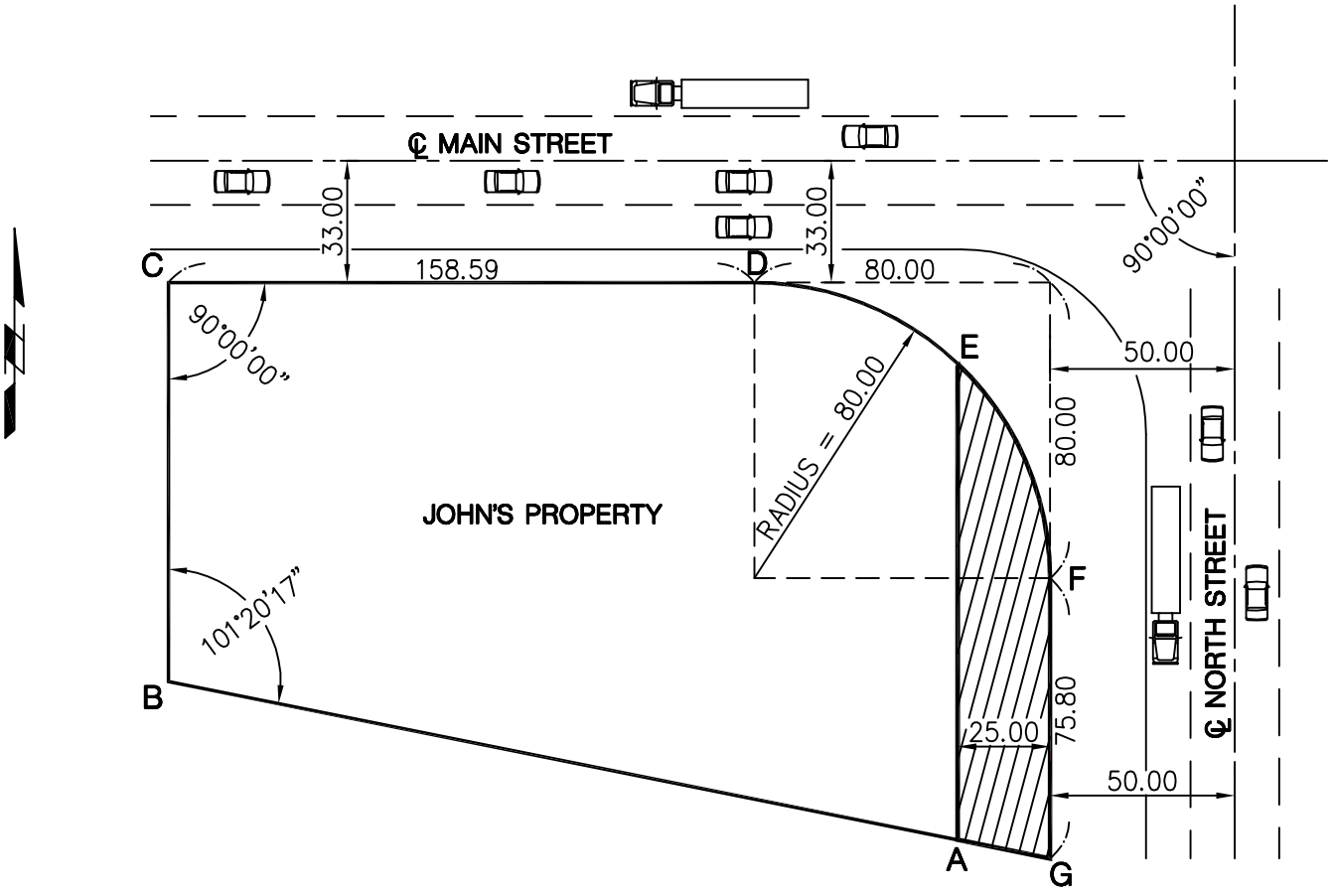
PAGE TOTAL: _____ POINTS

TRIG-STAR PROBLEM LOCAL CONTEST

REQUIRED ANSWER FORMAT

DISTANCES: NEAREST HUNDREDTH
AREAS: NEAREST WHOLE SQUARE UNIT

DUE TO AN INCREASE IN THE AMOUNT OF TRAFFIC, THE CITY NEEDS TO ACQUIRE SOME LAND FROM JOHN IN ORDER TO WIDEN NORTH STREET. THE ACQUISITION PARCEL THE CITY WANTS TO PURCHASE IS SHOWN BY THE HATCHED PORTION OF THE DRAWING. THE AREA NEEDS TO BE DETERMINED SO THE CITY CAN PAY JOHN FOR THE LAND.



FIND: DISTANCE AE = _____ (10 POINTS)

ARC DISTANCE E–F = _____ (10 POINTS)

AREA AEFG = _____ (10 POINTS)

PAGE TOTAL: _____ POINTS

TRIG-STAR ANSWER KEY LOCAL CONTEST

PAGE 1

∠ CBA =	61°07'04"
DISTANCE AC =	101.79

PAGE 1

∠ FEG =	44°15'09"
DISTANCE FH =	37.48
DISTANCE EF =	53.71
DISTANCE GH =	128.60
DISTANCE EH =	38.47

PAGE 2

DISTANCE AB =	70.08
DISTANCE AD =	107.52
DISTANCE AC =	118.64

PAGE 3

DISTANCE AE =	128.88
ARC DISTANCE E–F =	65.02
AREA AEFG =	2836