TRIG-STAR PROBLEM LOCAL CONTEST
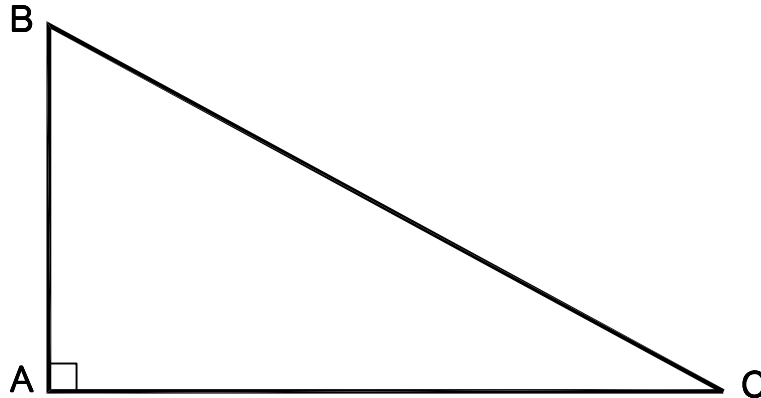

KNOWN: DISTANCE AB = 105.57   DISTANCE BC = 195.95
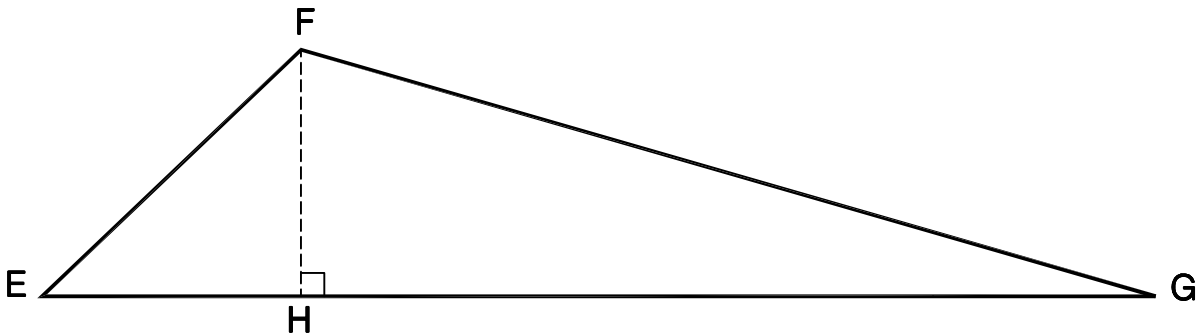
FIND: ∡ CBA = _____ (5 POINTS)

             DISTANCE AC = _____ (5 POINTS)

REQUIRED ANSWER FORMAT

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

TRIG-STAR PROBLEM LOCAL CONTEST

KNOWN: DISTANCE EF = 470.08 ∡ EFG = 121°43'43" ∡ FEG = 42°55'52"

FIND: DISTANCE EH = _____ (6 POINTS)

          DISTANCE FH = _____ (6 POINTS)

          DISTANCE FG = _____ (6 POINTS)

          DISTANCE GH = _____ (6 POINTS)
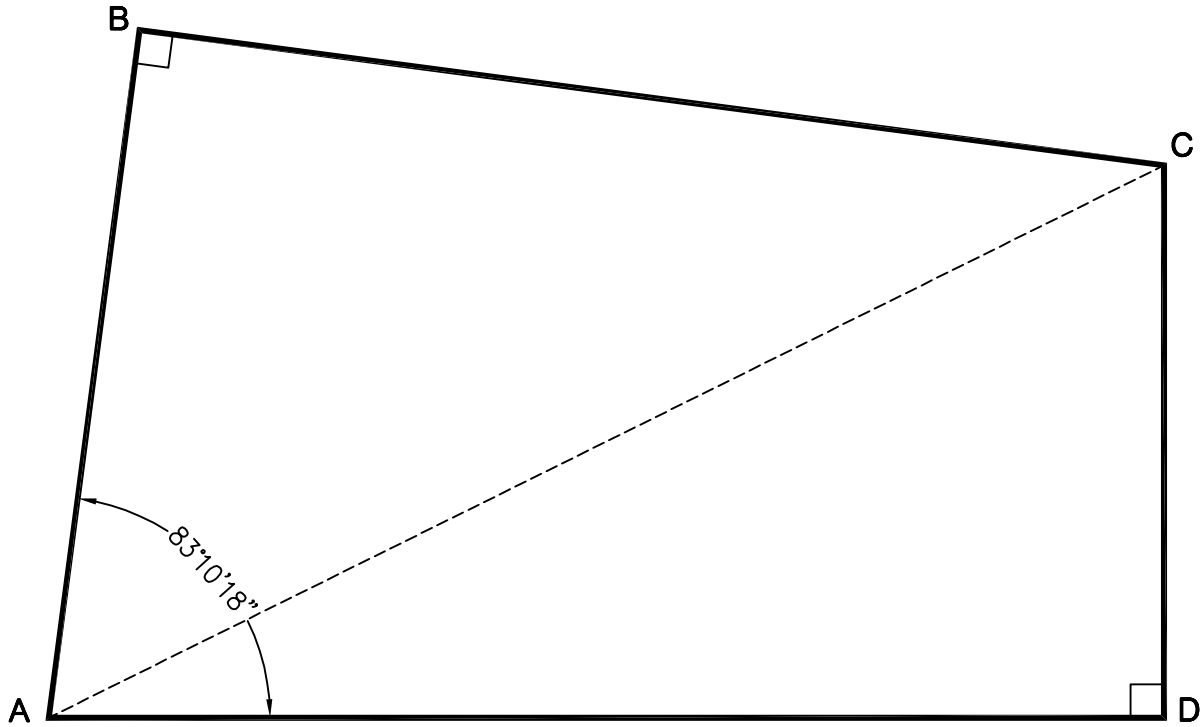
          ∡ EGF = _____ (6 POINTS)

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 = 733.41   DISTANCE CD = 387.67
∡ BAD = 83°10'18"

REQUIRED ANSWER FORMAT
DISTANCES: NEAREST HUNDREDTH

FIND: DISTANCE AB = _____ (10 POINTS)

DISTANCE AD = _____ (10 POINTS)
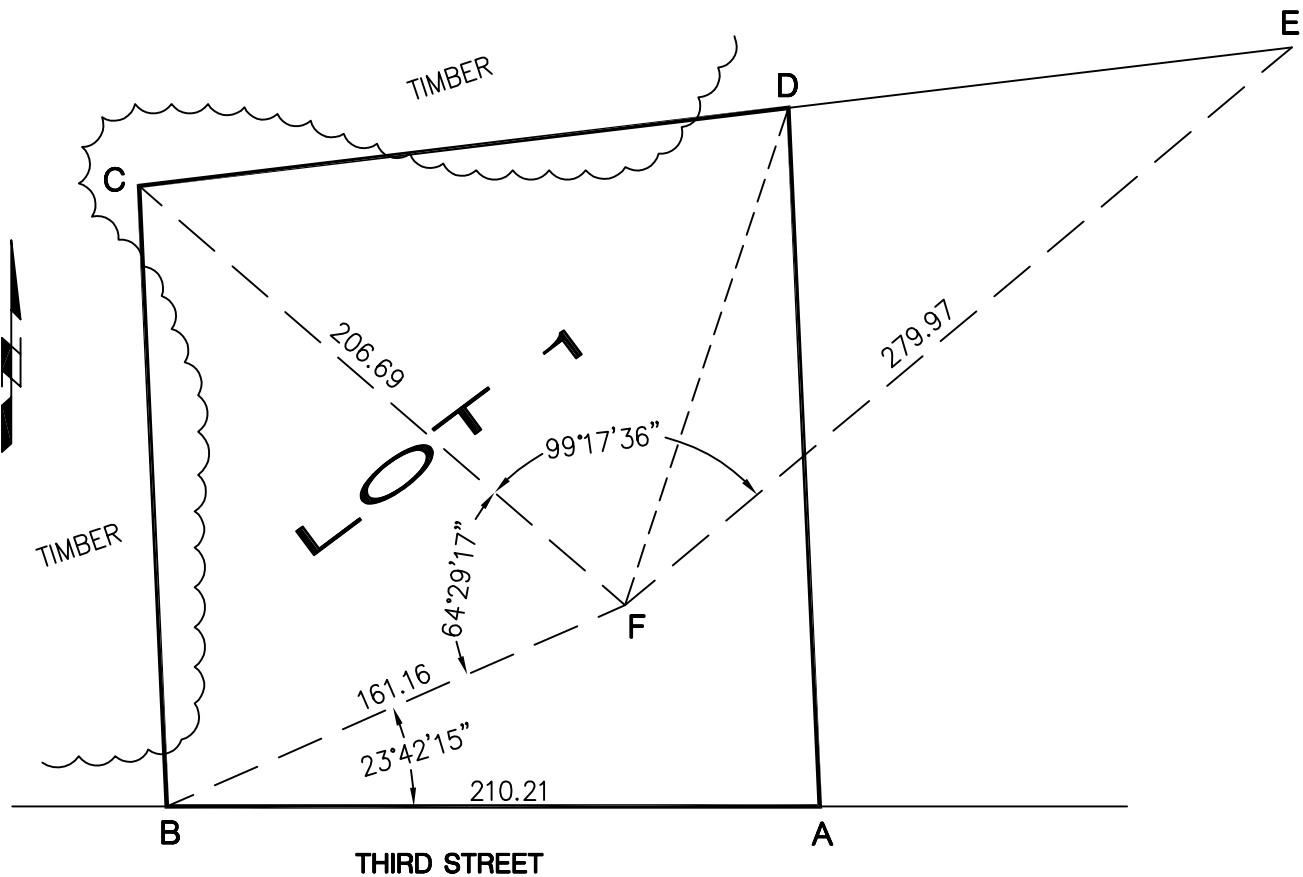
DISTANCE AC = _____ (10 POINTS)

PAGE TOTAL: _____ POINTS

TRIG-STAR PROBLEM LOCAL CONTEST

THE OWNER OF LOT 1, SHOWN AS FIGURE ABCD WOULD LIKE TO CONSTRUCT A FENCE AROUND THE PROPERTY FOR PRIVACY. A SURVEYOR HAS BEEN HIRED TO FIND OR SET THE BOUNDARY CORNERS.

SURVEY MONUMENTS WERE FOUND AT POINTS A, B AND C, BUT THE MONUMENT AT POINT D HAS BEEN DESTROYED. THE SURVEYOR FOUND A MONUMENT AT POINT E AND HAS DETERMINED FROM PREVIOUS RECORDS THAT POINT D SHOULD BE PLACED ON A STRAIGHT LINE BETWEEN POINTS C AND E. IT HAS ALSO BEEN DETERMINED THAT THE LINE AD IS PARALLEL WITH LINE BC.

THE SURVEYOR HAS OBTAINED THE ANGLES AND DISTANCES AS SHOWN BELOW.

REQUIRED ANSWER FORMAT
DISTANCES: NEAREST HUNDREDTH

FIND: DISTANCE BC = _____ (10 POINTS)

DISTANCE CD = _____ (10 POINTS)

DISTANCE DF = _____ (10 POINTS)

PAGE TOTAL: _____ POINTS

TRIG-STAR ANSWER KEY LOCAL CONTEST

PAGE 1

∠ CBA = | 57°24'03" |

DISTANCE AC = | 165.08 |

- -

PAGE 1

DISTANCE EH = | 344.18 |

DISTANCE FH = | 320.18 |

DISTANCE FG = | 1210.28 |

DISTANCE GH = | 1167.16 |

∠ FEG = | 15°20'25" |

- -

PAGE 2

DISTANCE AB = | 478.26 |

DISTANCE AD = | 785.07 |

DISTANCE AC = | 875.57 |

- -

PAGE 3

DISTANCE BC = | 200.00 |

DISTANCE CD = | 210.59 |

DISTANCE DF = | 168.58 |