TRIG-STAR PROBLEM LOCAL CONTEST
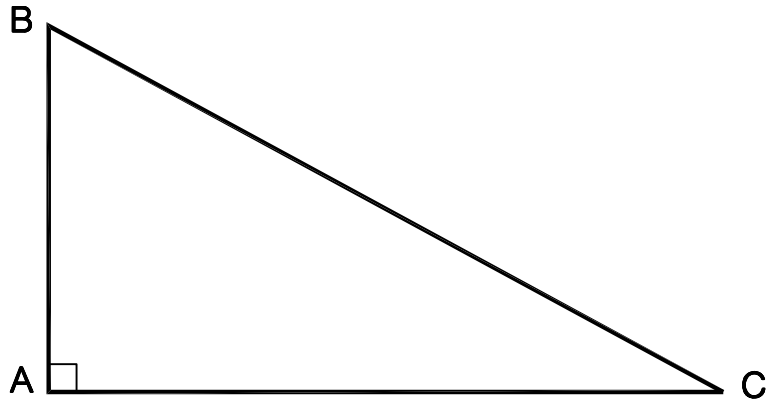
PRINT NAME: _____

KNOWN: DISTANCE AB = 240.41   DISTANCE BC = 487.78
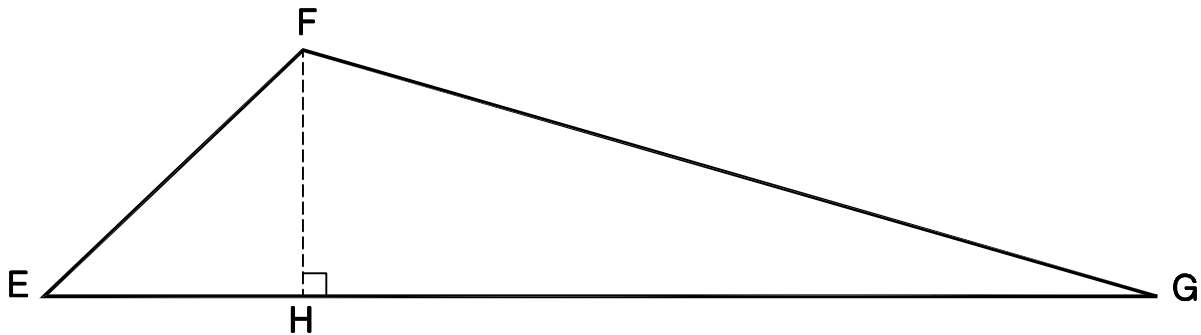
FIND: ∡ CBA = _____ (5 POINTS)

               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 = 317.75   ∡ EFG = 121°19'48"   ∡ FEG = 42°45'36"

FIND: DISTANCE EH = _____ (6 POINTS)

               DISTANCE FH = _____ (6 POINTS)

               DISTANCE FG = _____ (6 POINTS)

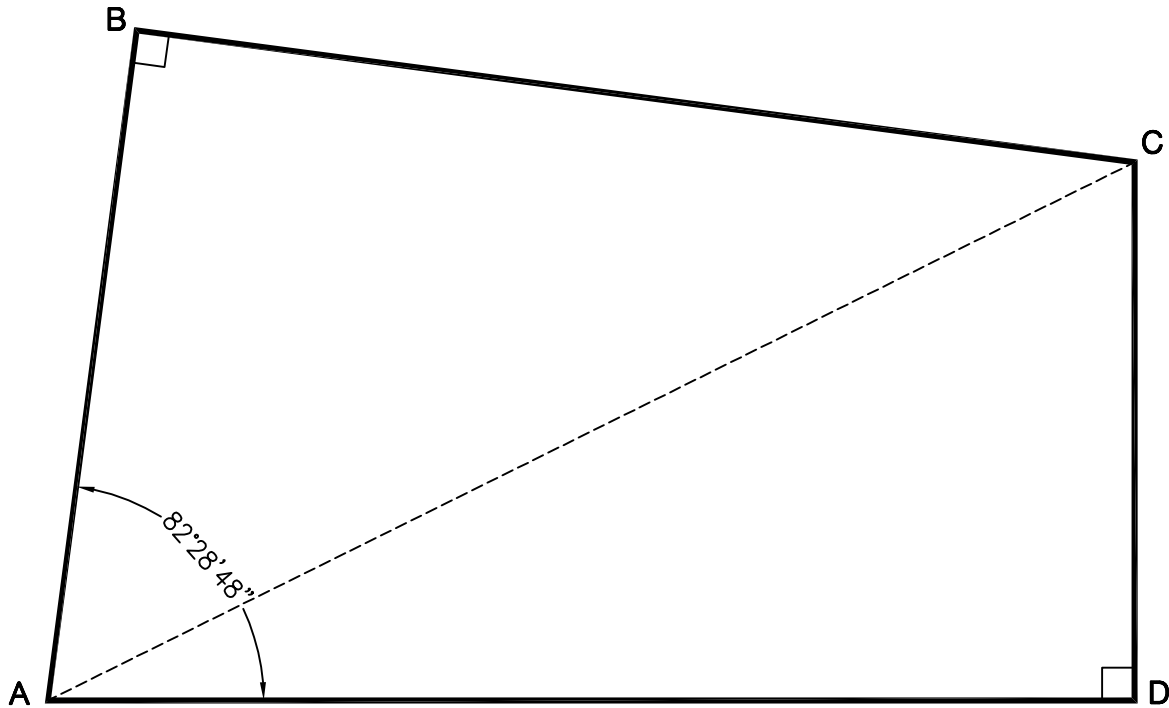   DISTANCE GH = _____ (6 POINTS)

               ∡ 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 = 325.32   DISTANCE CD = 180.18
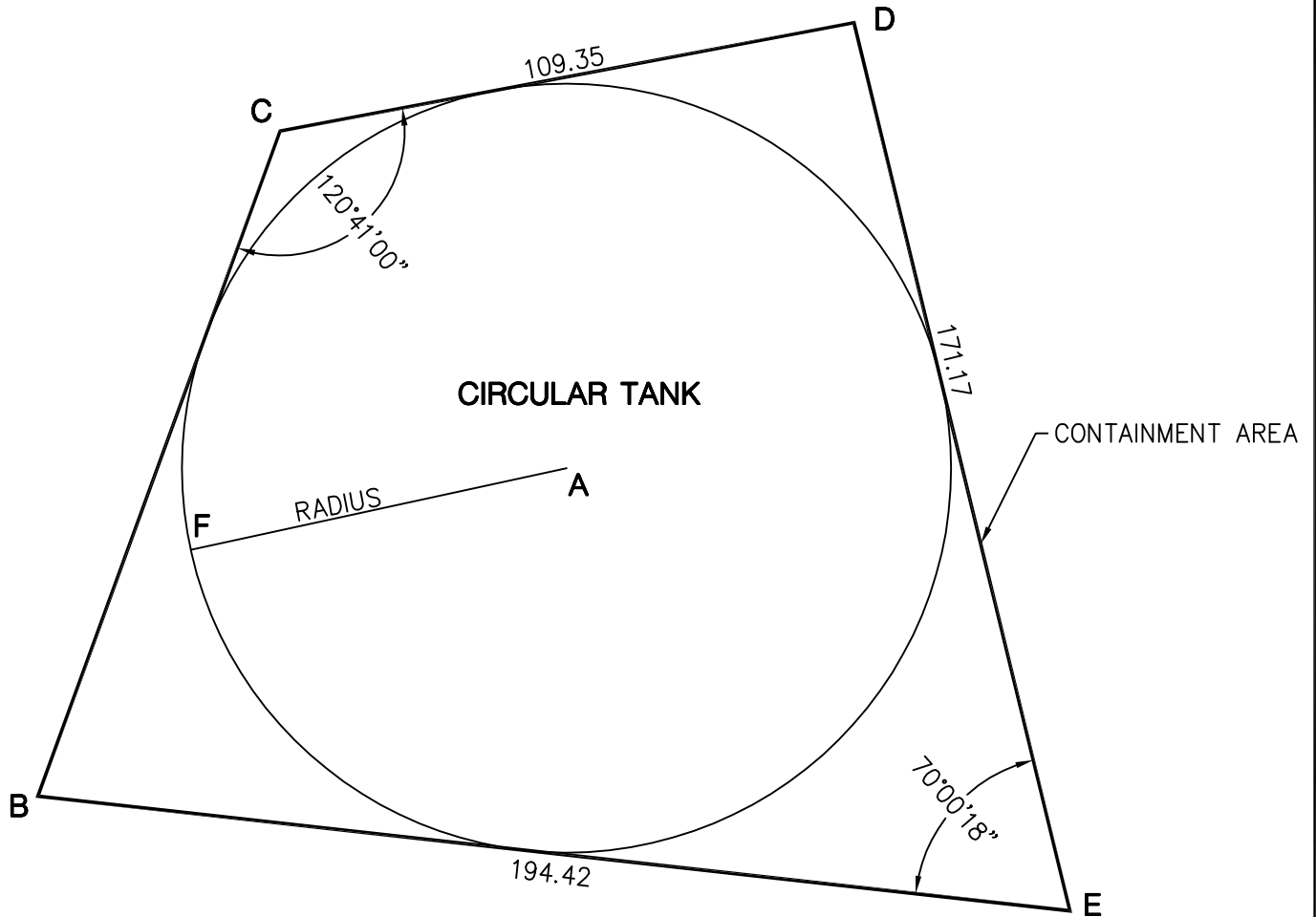∡ BAD = 82°28'48"

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

A MOLASSES PLANT WANTS TO CONSTRUCT THE LARGEST CIRCULAR TANK POSSIBLE INSIDE AN OBLIQUE SHAPED CONTAINMENT AREA. THE CENTER OF THE CIRCULAR TANK IS INDICATED BY POINT "A" AND THE CORNERS OF THE CONTAINMENT AREA ARE LABELED "B", "C", "D" AND "E". A SURVEYOR HAS BEEN HIRED TO DETERMINE THE DIMENSIONS BELOW.

D

C

109.35

120°41'00"

CIRCULAR TANK

171.17

A

CONTAINMENT AREA

F   RADIUS

B

70°00'18"

194.42

E

FIND: DISTANCE AB = _____ (8 POINTS)

DISTANCE AC = _____ (8 POINTS)

DISTANCE AD = _____ (8 POINTS)

DISTANCE AE = _____ (8 POINTS)

RADIUS DISTANCE AF = _____ (8 POINTS)

PAGE TOTAL: _____ POINTS

REQUIRED ANSWER FORMAT
DISTANCES: NEAREST HUNDREDTH

TRIG-STAR ANSWER KEY LOCAL CONTEST

PAGE 1

∡ CBA = | 60°28'15" |

DISTANCE AC = | 424.42 |

- -

PAGE 1

DISTANCE EH = | 233.29 |

DISTANCE FH = | 215.73 |

DISTANCE FG = | 786.97 |

DISTANCE GH = | 756.82 |

∡ EGF = | 15°54'36" |

- -

PAGE 2

DISTANCE AB = | 224.69 |

DISTANCE AD = | 351.93 |

DISTANCE AC = | 395.37 |

- -

PAGE 3

DISTANCE AB = | 116.51 |

DISTANCE AC = | 82.85 |

DISTANCE AD = | 99.28 |

DISTANCE AE = | 125.52 |

DISTANCE AF = | 72.00 |