TRIG-STAR PROBLEM LOCAL CONTEST
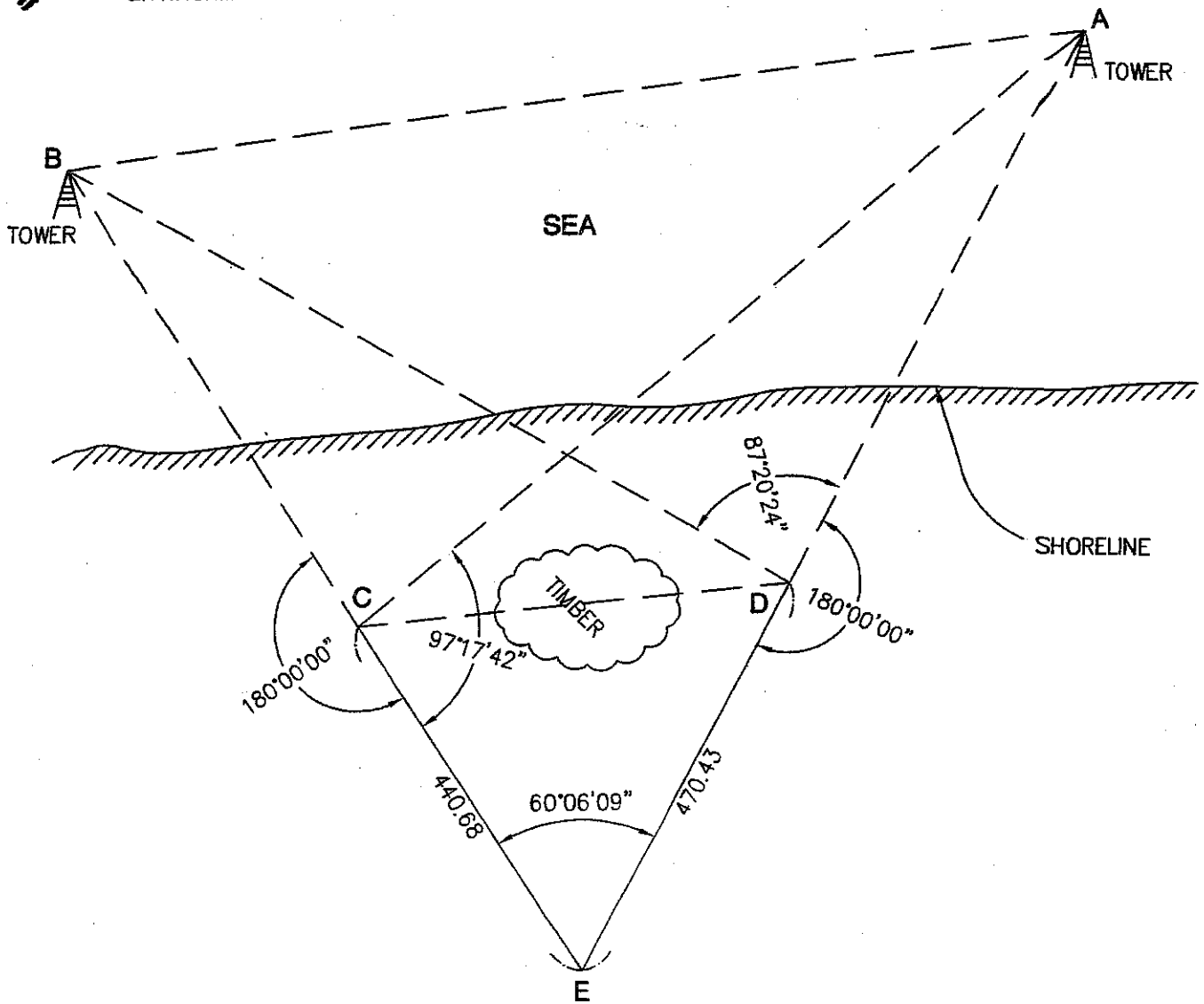
THE GOVERNMENT HAS CONSTRUCTED OFFSHORE COMMUNICATION TOWERS TO HELP MONITOR THE COASTAL WATERS. A FIBER OPTIC CABLE NEEDS TO BE CONNECTED FROM THE POINTS ON LAND TO THE TOWERS FOR INCREASED SECURITY. THIS CABLE WILL ENABLE THE TOWERS TO TRANSMIT MORE INFORMATION QUICKER, FOR SURVEILANCE AND ENVIRONMENTAL PURPOSES.

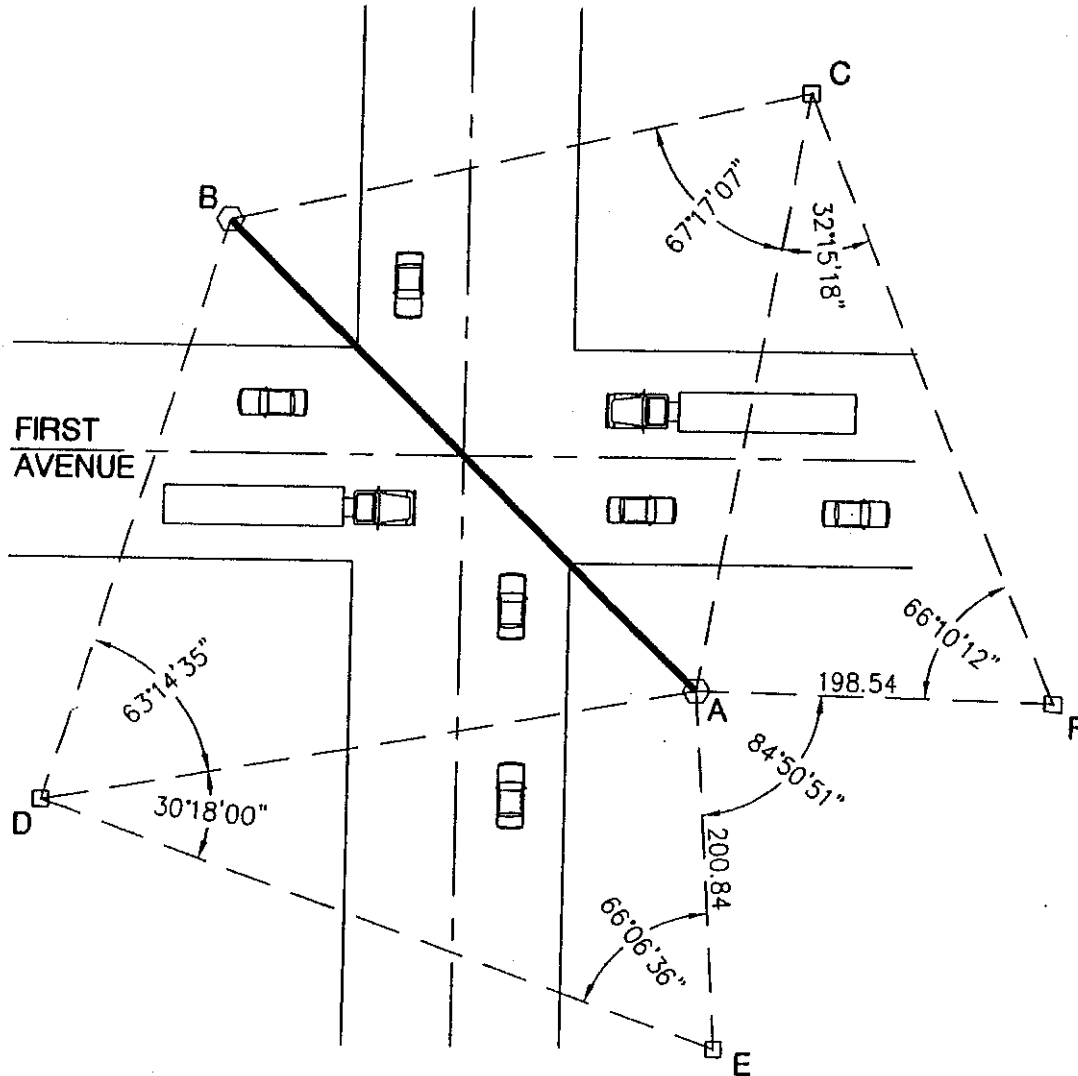A TOWER

B TOWER

SEA

SHORELINE

TIMBER

87°20'24"

97°17'42"

180°00'00"

180°00'00"

C

D

440.68

470.43

60°06'09"

E

FIND:

DISTANCE AC = _____ (4 POINTS)

DISTANCE AD = _____ (5 POINTS)

DISTANCE BD = _____ (4 POINTS)

DISTANCE BC = _____ (5 POINTS)

DISTANCE CD = _____ (5 POINTS)

DISTANCE AB = _____ (7 POINTS)

PAGE TOTAL: _____ POINTS

REQUIRED ANSWER FORMAT
DISTANCES: NEAREST HUNDREDTH

TRIG-STAR PROBLEM LOCAL CONTEST

A LOCAL TRAFFIC ENGINEERING DEPARTMENT HAS DETERMINED THE NEED FOR AN OVERHEAD SIGNAL LIGHT SYSTEM AT A VERY BUSY INTERSECTION. THE SUPPORT POLES NEED TO BE PLACED AT POINTS A AND B. DUE TO HEAVY TRAFFIC VOLUME, THE FIELD MEASUREMENTS BY THE SURVEY CREW WERE LIMITED TO THE FOLLOWING SKETCH:
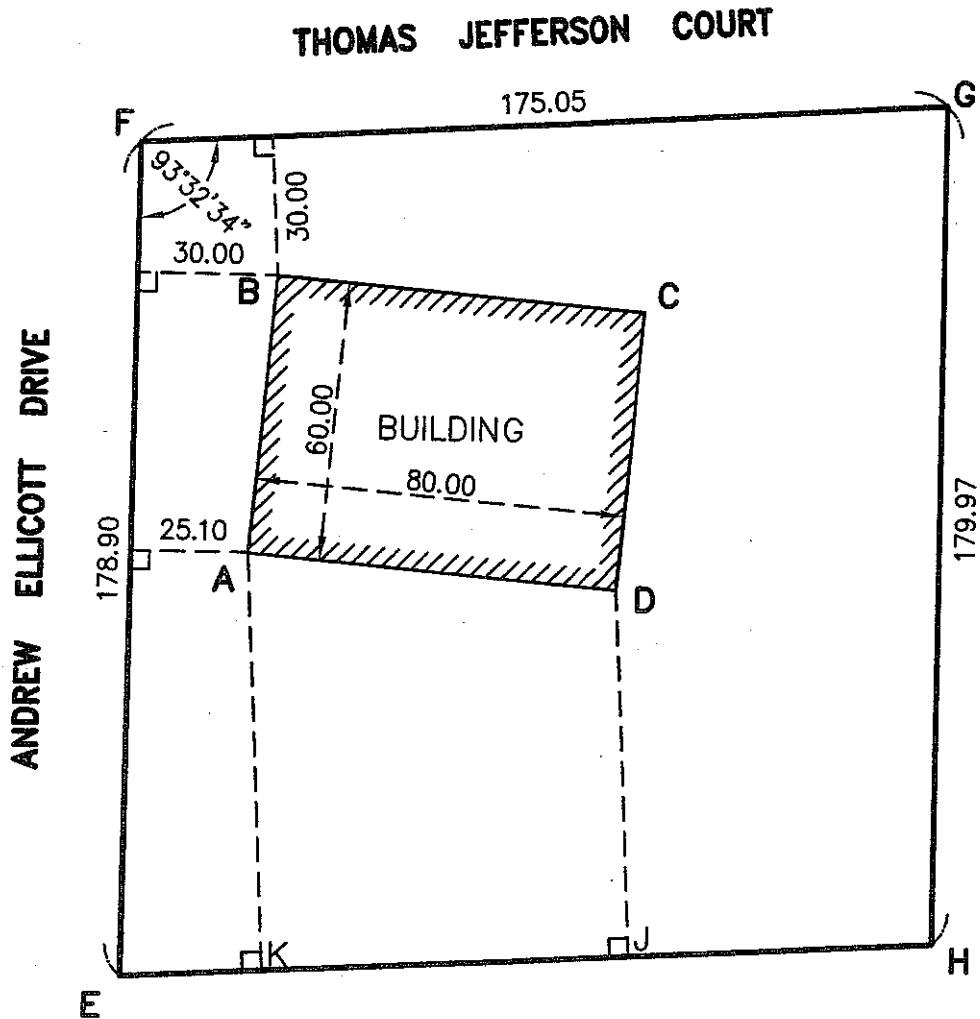

FIRST AVENUE

C

B

D

A

F

E

69°17'07"

32°15'18"

63°14'35"

30°18'00"

84°50'51"

66°06'36"

66°10'12"

198.54

200.84

FIND: ✳ DISTANCE AC = _____ (6 POINTS)

     ✳ DISTANCE AD = _____ (6 POINTS)

     DISTANCE DC = _____ (6 POINTS)

     DISTANCE BC = _____ (6 POINTS)

     DISTANCE AB = _____ (6 POINTS)

REQUIRED ANSWER FORMAT
DISTANCES: NEAREST HUNDREDTH

PAGE TOTAL: _____ POINTS

TRIG—STAR PROBLEM   LOCAL CONTEST

A SURVEYOR HAS BEEN ASKED TO STAKE OUT A NEW RECTANGULAR SHAPED BUILDING AS SHOWN IN THE DRAWING BELOW.   POINTS A, B, C AND D REPRESENT THE BUILDING CORNERS AND POINTS E, F, G AND H ARE PROPERTY CORNERS. LINE EF IS PARALLEL WITH LINE HG.
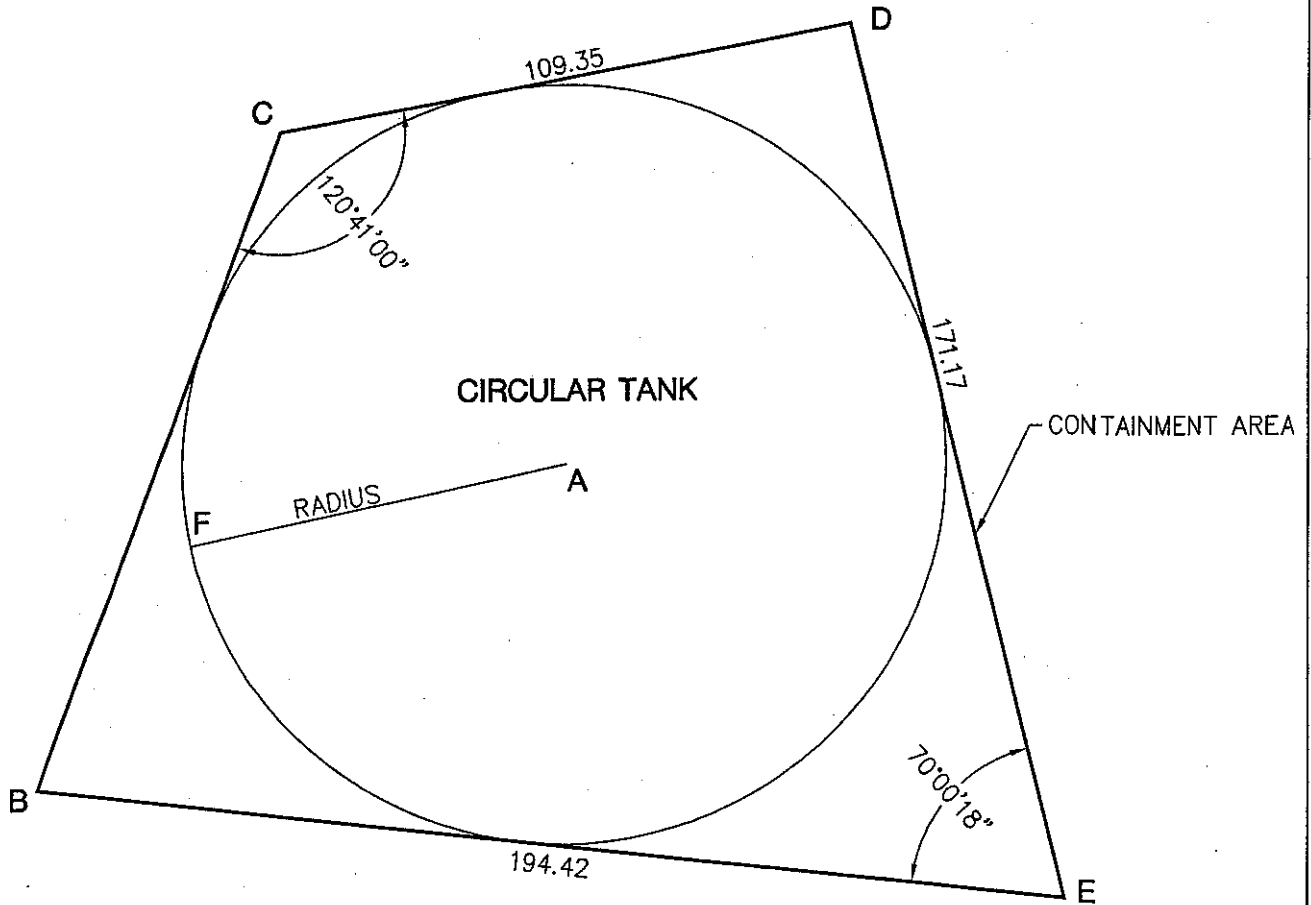
THOMAS   JEFFERSON   COURT

175.05

F

G

93°32'34"

30.00

30.00

B

C

ANDREW ELLICOTT DRIVE

60.00

BUILDING

80.00

179.97

178.90

25.10

A

D

K

J

E

H

FIND: DISTANCE AC = _____ (8   POINTS)

DISTANCE AE = _____ (8   POINTS)

DISTANCE EH = _____ (8   POINTS)

DISTANCE AK = _____ (8   POINTS)

DISTANCE DJ = _____ (8   POINTS)

REQUIRED ANSWER FORMAT

DISTANCES: NEAREST   HUNDREDTH

PAGE TOTAL: _____ POINTS

2015/2016

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

109.35

C

120°41'00"

CIRCULAR TANK

171.17

CONTAINMENT AREA

RADIUS   A

F

70°00'18"

B

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

2005-2006

DISTANCE AB = [116.51]

DISTANCE AC = [82.85]

DISTANCE AD = [99.28]

DISTANCE AE = [125.52]

DISTANCE AF = [72.00]

2007-2008

DISTANCE AC = [340.30]

DISTANCE AD = [363.97]

DISTANCE DC = [577.02]

DISTANCE BC = [327.27]

DISTANCE AB = [370.00]

2010-2011

DISTANCE AC = [994.01]

DISTANCE AD = [666.89]

DISTANCE BD = [891.07]

DISTANCE BC = [586.07]

DISTANCE CD = [456.99]

DISTANCE AB = [1087.93]

2015-2014

DISTANCE AC = [100.00]

DISTANCE AE = [94.30]

DISTANCE EH = [174.99]

DISTANCE AK = [89.36]

DISTANCE DJ = [78.40]