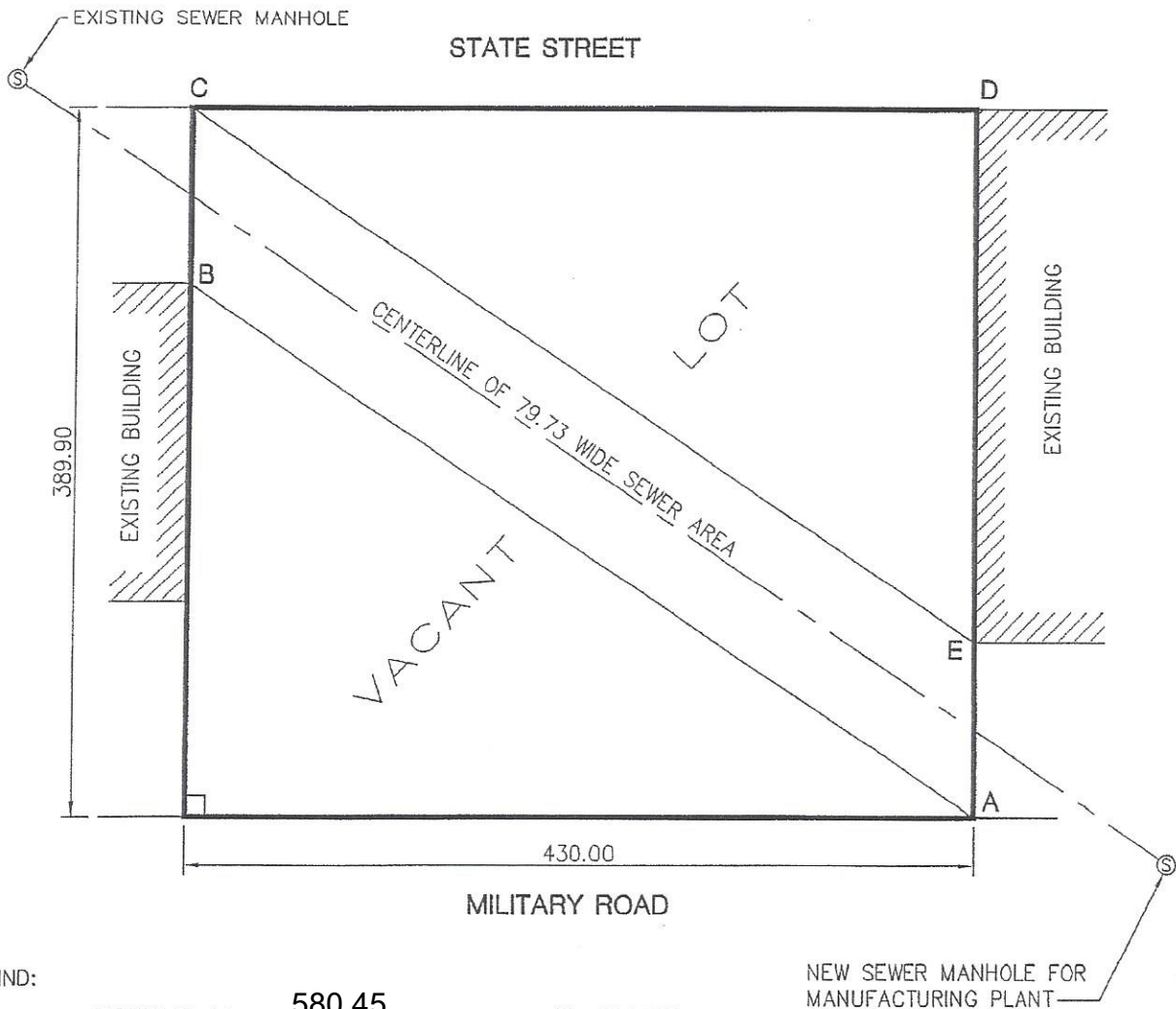


TRIG-STAR PROBLEM LOCAL CONTEST

A MANUFACTURING PLANT WOULD LIKE TO EXPAND BUT NEEDS MORE SEWER CAPACITY. THE CITY HAS AGREED TO HELP BY INSTALLING A NEW SEWER LINE ACROSS A RECTANGULAR SHAPED VACANT LOT TO A NEW MANHOLE FOR THE PLANT'S CONVENIENCE. THE SEWER LINE WILL NEED AN AREA 79.73 IN WIDTH FOR CONSTRUCTION AND MAINTENANCE PURPOSES. THIS AREA IS TO BE PLACED ON THE VACANT LOT SUCH THAT THE OPPOSITE SIDES PASS THROUGH THE DIAGONAL CORNERS OF THE LOT. THE OWNER OF THE VACANT LOT WOULD LIKE MORE INFORMATION BEFORE SELLING THE SEWER AREA TO THE CITY.



FIND:

- DISTANCE AC = 580.45 (5 POINTS)
- DISTANCE AE = 96.52 (6 POINTS)
- DISTANCE CE = 520.55 (6 POINTS)
- AREA ABCE = 41503 (6 POINTS)
- AREA CDE = 63077 (7 POINTS)

REQUIRED ANSWER FORMAT
 DISTANCES: NEAREST HUNDREDTH
 AREA: NEAREST WHOLE UNIT

PAGE TOTAL: _____ POINTS