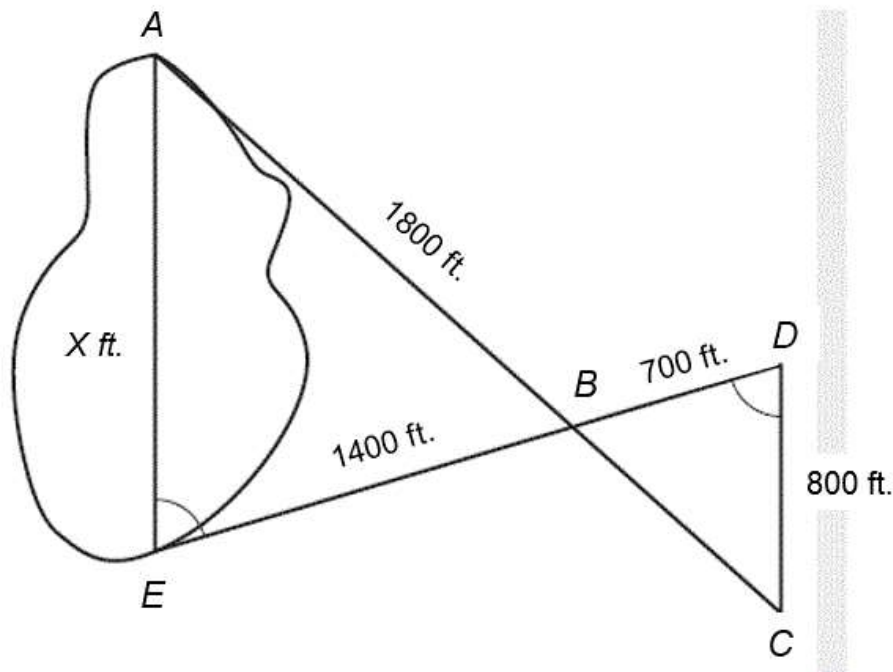




Gordon Burgin's Puzzles

February 2021 challenge

1. A summer camp counsellor wants to find a length, x , in feet, of the lake as represented in the sketch below. The lengths represented by AB , EB , BD and CD on the sketch were determined to be 1800 feet, 1400 feet, 700 feet, and 800 feet, respectively. Segments AC and DE intersect at B , and angles AEB and CDB have the same measure. What is the value of x ?



2. A food truck sells salads for \$6.50 each and drinks for \$2.00 each. The food truck's revenue from selling a total of 209 salads and drinks in one day was \$836.50. How many salads were sold that day?
3. How many litres of a 25% saline solution must be added to 3 litres of a 10% saline solution to obtain a 15% saline solution?