



DETERMINING AREA IN ACRES VOLUME IN FEET AND AVERAGE DEPTH

Square or Rectangular Pond

Formula: Area = Length x Width

Example: Pond is 200' x 350' = 70,000 square feet
 $70,000 \div 43,560 = 1.6$ surface acres
Average Depth = 3.2 feet (instructions on next page)
 1.6 acres x 3.2 feet = 5.12 acre feet of water.

Triangular Pond

Formula: Area = $\frac{1}{2}$ x Base x Height

Example: Pond averages 4.2 feet and is 200' along the dam x 500' to upper end.
 $\frac{1}{2}$ (200' x 500') = 50,000 \div 43,560 = 1.1 surface acres
1.1 surface acres x 4.2 feet = 4.95 acre feet of water.

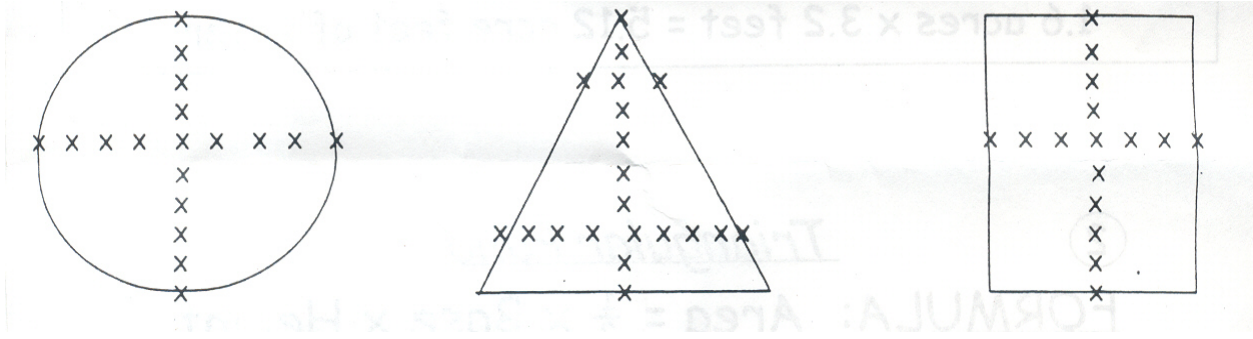
Circular Pond:

Formula: Area = 3.14 x (Radius)²

Example: Pond averages 3.9 feet deep and has a radius of 150' across the middle (diameter)
 $3.14 \times (75')^2 \div 43,560$
 $17,662.5 \div 43,560 = 0.41$ acre feet of water.

Look at the next page to determine "Average Depth in Feet".

CALCULATING AVERAGE DEPTH



Formula: Sum of all Soundings ÷ Number of Soundings

Hint: Measure depth in feet using a calibrated rope and anchor or pole marked in feet. Begin each transect at the bank with a zero and end with a zero on the far bank.

Example: Circular pond has depths (in feet) of 0,3,3,6,7,4,2,0 for transect 1 and 0,3,6,6,4,4,1,0 for transect 2.

49 (sum of all readings) ÷ 16 (number of readings) = 3.1 feet

Average Depth of this pond is 3.1 feet!