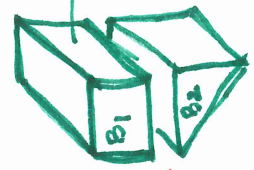
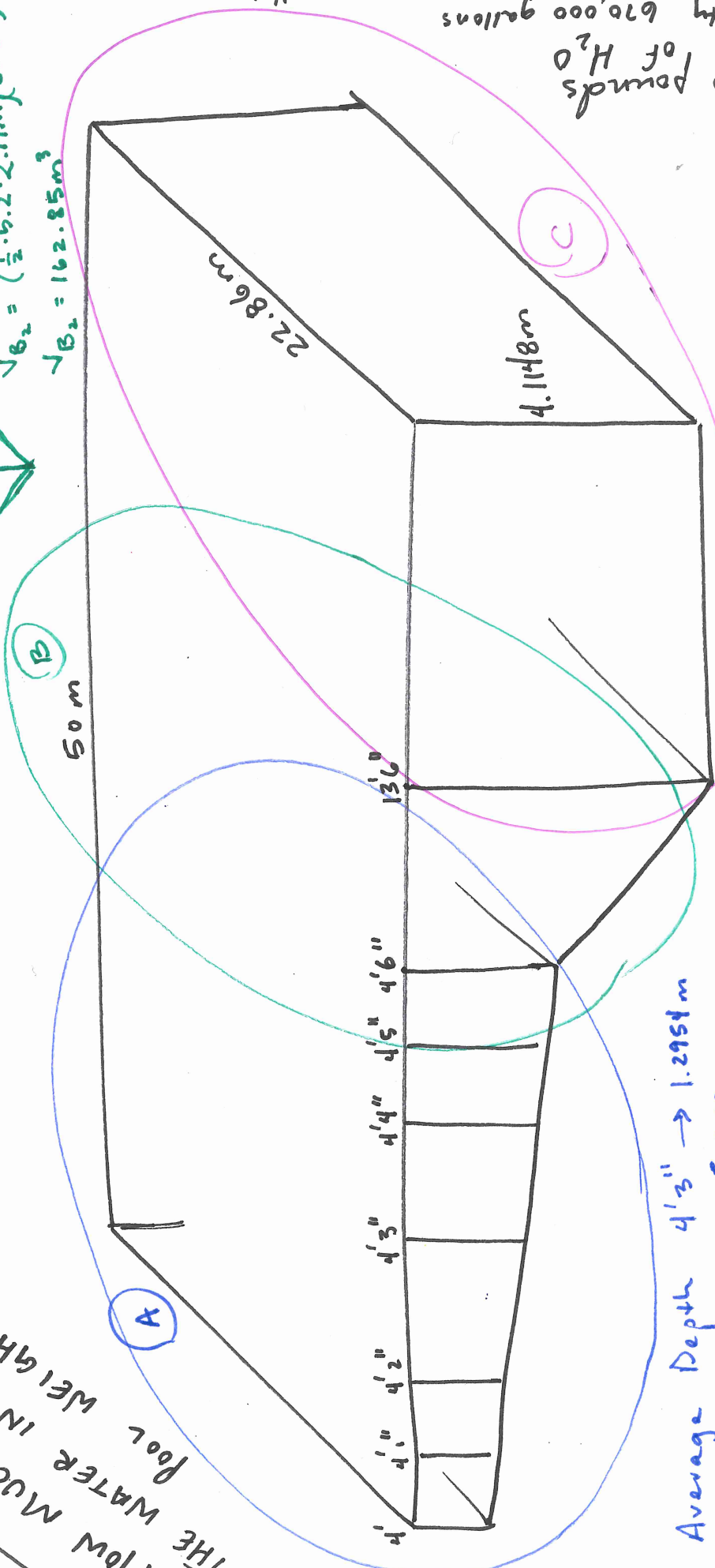


Driving Question:  
How much does the water in the pool weigh?



$4.1148\text{m} - 1.37\text{m} = 2.74\text{m}$   
 $V_{B1} = (22.86\text{m})(1.37\text{m})(5.2\text{m})$   
 $V_{B1} = 162.85\text{m}^3$   
 $V_{B2} = (\frac{1}{2} \cdot 5.2 \cdot 2.74\text{m})(22.86)$   
 $V_{B2} = 162.85\text{m}^3$

$V_B = 325.71\text{m}^3$



Average Depth  $4'3'' \rightarrow 1.2954\text{m}$   
 Depth change every  $5.2\text{m}$   
 $5.2 \times 6 = 31.2\text{m}$

$V_A = (22.86\text{m})(31.2\text{m})(1.2954\text{m}) = 923.92\text{m}^3$

$V_C = (13.6\text{m})(4.1148\text{m})(22.86\text{m})$   
 $V_C = 1279.27\text{m}^3$

$V_{\text{Pool}} = V_A + V_B + V_C = 325.71\text{m}^3 + 923.92\text{m}^3 + 1279.27\text{m}^3 = 2528.90\text{m}^3$   
 $\frac{2528.90\text{m}^3}{1\text{m}^3} \rightarrow 264.172\text{gallons}$   
 $\frac{264.172\text{gallons}}{8.34\text{lb/gallon}} = 668,065.85\text{gallons}$

$5,571,669.23$  pounds of  $\text{H}_2\text{O}$   
 $\rightarrow 5,601,200\text{lbs}$  actual capacity 670,000 gallons

$\frac{4.1148\text{m}}{1.37\text{m}} \rightarrow 2.996$   
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