

A34 B134(149) C52169(2.12) D47

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分尺。之，八乘十自術答何：深今  
 除以得十之，六相曰：曰：一今有圓  
 之，斛四八得尺。乘，先二丈圓  
 即法千尺。五以得，置千八密  
 得。一三以萬深二周七尺周  
 尺百一二一千五百五丈  
 六七十千丈九丈斛。五丈  
 寸十二四八百四四尺  
 二四除百尺一尺，幾尺

Now we have a circular cellar, with circumference five丈 four 尺,  
 and depth one丈 eight 尺.

We ask: how much grain beareth it?

Answer saith: two thousand, seven hundred 斛.

Method saith: first put down the circumference, five丈 four 尺,  
 which, multiplied with itself, resulteth in two thousand nine hundred  
 and sixteen 尺. Multiplying it by the depth, one丈 eight 尺,  
 resulteth in fifty-two thousand, four hundred and eighty-eight 尺.  
 Dividing it by twelve, resulteth in four thousand, three hundred and  
 seventy-four 尺. Dividing it by the 斛 divider, one 尺 six 寸 two 分,  
 we are done.

$$V \approx \frac{C^2 H}{12} = \frac{(54 \text{ 尺})^2 (18 \text{ 尺})}{12} \div \frac{1.62 \text{ 尺}^3}{\text{斛}} = 2700 \text{ 斛}$$

解法: see 10. A, B, D cm. missing 自 in 自相乘.

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