Problem Solving Unit Quiz

Part I.) Use the template and the eight tenets of problem solving to answer the following question:

In an integrated circuit fabrication process, a circular wafer cut from a cylindrical boule has a thickness of 1.00 mm and a diameter of 16 inches. If the density of silicon is 2.336 g/cm$^3$, what is the mass of the wafer in grams?

1. 

2. 

3. 

4. 

5. 

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Part II) Answer the Following multiple choice questions:

1) The Eight Tenets of Problem Solving are use to systematically solve problems where a _______ answer is desired.
   a) Hypothetical  b) Logical  
   c) Numerical  d) Qualitative

2) Determining the Knowns and Unknowns in the problem is which Tenet of Problem Solving?
   a) Second  b) Third
   c) Forth  d) Fifth

3) Another method used by scientists and engineers to examine problems besides the Eight Tenets of Problem Solving is:
   a) The Scientific Method  b) The Heisenberg Uncertainty Principle
   c) The Socratic Method  d) Fick’s Law

4) When doing Tenet 7 (Check the Answer) you should check:
   a) Does it make sense?  b) Does it answer the problem?
   c) Does it have the proper units?  d) All of the Above.