



---

The disc was made of iron, had a diameter of 1 meters and a thickness of 10 mm. If the iron costs \$2.14 per pound, determine the

- a) volume of the disc in cubic centimeters
  - b) specific gravity of the disc
  - c) mass of the disc in kg
  - d) the material cost (in \$) for one of these discs
-

Please answer **two** of the following in type written format and hand in with your assignment

- i) Find a reference for the price of the material you were given. What was the price of this material 5 years ago, 10 years ago? Is this material more expensive than iron? Cite your reference(s)
- ii) Comparing the disc above to a utility access cover in the middle of some streets (aka manhole covers). Would this be a good material for these covers? Why or why not? Besides making them out of different material what two different modifications could be performed on the discs to make them more suitable for this application.
- iii) Investigate the history of the material on the web. When was this material discovered or made? How is it currently manufactured and where? Please cite at least two sources.