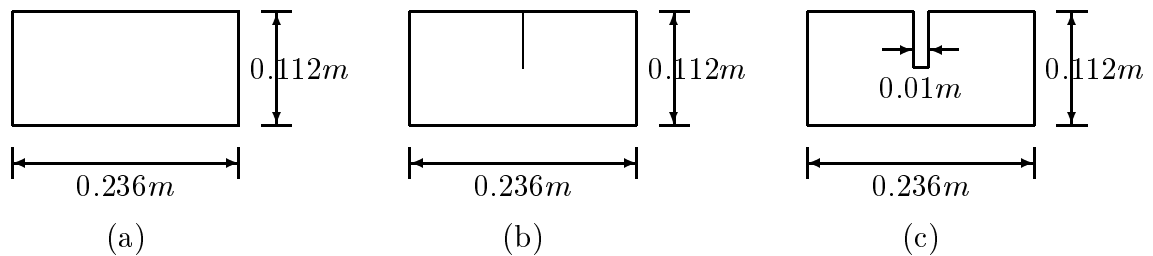


程式9(a) ACOUSTICS by MRM



1. Problem statement:

$$G.E.: (\nabla^2 + k^2)p(x, y) = 0, \quad (x, y) \in D$$

$$BC: \frac{\partial p}{\partial n} = 0, \quad (x, y) \text{ on the boundaries}$$

where $k = \frac{\omega}{c}$.

2. Fill in the acoustic frequencies in following table

Mode no.	(a)	(b)	(c)
1			
2			
3			
4			
5			

3. Please show

- (1). BEM mesh
- (2). Pressure contour for acoustic modes
- (3). 3-D plot for pressure of acoustic modes

References

- [1] 陳正宗、劉德源、陳桂鴻與翁煥昌，1997，不完全隔間小空間聲場自然聲模分析與實驗，國科會專題研究成果報告 NSC 86-2211-E-019-006，國立台灣海洋大學河海工程研究所。
- [2] J. T. Chen and F. C. Wong, 1998, Dual formulation of multiple reciprocity method for the acoustic mode of a cavity with a thin partition, J. of Sound and Vibration, Vol.217, No.1, pp.75-95. (SCI and EI)
- [3] J. T. Chen, S. R. Kuo, I. L. Chung and C. X. Huang, 2003, Study on the true and spurious eigensolutions of two-dimensional cavities using the dual multiple reciprocity method, Engineering Analysis with Boundary Elements, Accepted. (SCI and EI)
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