



Using MFS by the approximation,

$$u(x) = \sum_{j=1}^M c_j \ln |\tilde{x} - \tilde{s}_j|$$

please solve and plot the contour for the exterior Laplace problem by using

(1). $M = 5$, $u(\mathbf{q}) = \cos(3\mathbf{q})$, $x \in B$

(2). $M = 9$, $u(\mathbf{q}) = \cos(3\mathbf{q})$, $x \in B$

References:

- 【1】 J.T. Chen, I.L. Chen, C.S. Wu, On the equivalence of MFS and Trefftz method for Laplace problems, Global Chinese Workshop on Boundary Element and Meshless Methods, Qinhuaodao, 2003.