**Problem 3:**

Relative residual of the solution:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| p/m | 20 | 40 | 80 | 10 |
| 1 | 7.294668193983622e-01 | 7.063107134182481e-01 | 6.959607235579092e-01 | 7.858253253399776e-01 |
| 2 | 4.731583983562910e-01 | 3.558139143338592e-01 | 3.173133740901887e-01 | 6.364403614497478e-01 |
| 3 | 4.563953640085777e-01 | 3.556352256466094e-01 | 3.022986224595127e-01 | 5.289553143071153e-01 |
| 4 | 2.952335707224019e-01 | 2.451783571607627e-01 | 2.368516297819168e-01 | 2.257410771053624e-01 |
| 5 | 1.176642759442601e-01 | 1.189955710681180e-01 | 1.267072086769069e-01 | 6.355512681433832e-02 |

Relative residual of the fit:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| p/m | 20 | 40 | 80 | 10 |
| 1 | 6.911221727488512e-01 | 6.895675397813855e-01 | 6.878574823410639e-01 | 7.194502280405735e-01 |
| 2 | 3.534431325775947e-01 | 3.494353556951194e-01 | 3.479476989438713e-01 | 4.362431657101649e-01 |
| 3 | 4.087088245218794e-01 | 3.472602462627042e-01 | 3.498167436502918e-01 | 5.460716808834961e-01 |
| 4 | 3.461460924096203e-01 | 2.764868467055708e-01 | 2.582862390703990e-01 | 3.992064949800583e-01 |
| 5 | 1.897340781931254e-01 | 1.388107902313317e-01 | 1.318696414954406e-01 | 2.077002536172520e-01 |

