

```

Neville's method result for f(3.7): 1.5549999999999995
Newton's forward difference table:
[[23.5492  1.8421 -0.411  -0.3836]
 [25.3913  1.4311 -0.7946  0.    ]
 [26.8224  0.6365  0.    0.    ]
 [27.4589  0.    0.    0.    ]]
Newton's forward method result for f(7.3): 24.497649999999997
Hermite polynomial approximation matrix:
[[ 1.675000000e+00  0.000000000e+00 -5.975000000e+00  2.987500000e+01
  -9.880555556e+01  3.27870370e+02]
 [ 1.675000000e+00 -1.195000000e+00 -9.99200722e-15  2.33333333e-01
  -4.44444444e-01  0.000000000e+00]
 [ 1.436000000e+00 -1.195000000e+00  7.000000000e-02  1.000000000e-01
  0.000000000e+00  0.000000000e+00]
 [ 1.436000000e+00 -1.188000000e+00  8.000000000e-02  0.000000000e+00
  0.000000000e+00  0.000000000e+00]
 [ 1.318000000e+00 -1.180000000e+00  0.000000000e+00  0.000000000e+00
  0.000000000e+00  0.000000000e+00]
 [ 1.318000000e+00 -1.182000000e+00  0.000000000e+00  0.000000000e+00
  0.000000000e+00  0.000000000e+00]]
Cubic spline matrix A:
[[12.  3.]
 [ 3. 10.]]
Cubic spline vector b:
[0. 2.]
Cubic spline vector x:
[-0.05405405  0.21621622]

```

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.....

Ran 5 tests in 0.004s

OK