

數值方法作業五

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Question1_a

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Desktop/F54091196_numerical_hw5/question1_a.py
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t	Euler y	Exact y	Error
1.00	0.00000	0.00000	0.00000
1.10	0.10000	0.10516	0.00516
1.20	0.20992	0.22124	0.01133
1.30	0.33047	0.34912	0.01865
1.40	0.46235	0.48968	0.02733
1.50	0.60629	0.64388	0.03759
1.60	0.76304	0.81275	0.04971
1.70	0.93348	0.99749	0.06402
1.80	1.11854	1.19944	0.08090
1.90	1.31929	1.42012	0.10082
2.00	1.53694	1.66128	0.12434

Question1_b:

```
Desktop/F54091196_numerical_hw5/question1_b.py
```

t	Taylor y	Exact y	Error
1.00	0.00000	0.00000	0.00000
1.10	0.10000	0.10516	0.00516
1.20	0.20943	0.22124	0.01181
1.30	0.32895	0.34912	0.02017
1.40	0.45919	0.48968	0.03049
1.50	0.60080	0.64388	0.04307
1.60	0.75450	0.81275	0.05826
1.70	0.92103	0.99749	0.07647
1.80	1.10124	1.19944	0.09820
1.90	1.29607	1.42012	0.12405
2.00	1.50657	1.66128	0.15471

Question2

```
Desktop/F54091196_numerical_hw5/question2.py
```

t	Taylor y	Exact y	Error
1.00	0.00000	0.00000	0.00000
1.10	0.10000	0.10516	0.00516
1.20	0.20943	0.22124	0.01181
1.30	0.32895	0.34912	0.02017
1.40	0.45919	0.48968	0.03049
1.50	0.60080	0.64388	0.04307
1.60	0.75450	0.81275	0.05826
1.70	0.92103	0.99749	0.07647
1.80	1.10124	1.19944	0.09820
1.90	1.29607	1.42012	0.12405
2.00	1.50657	1.66128	0.15471