3.2. Построить кубический сплайн для функции, заданной в узлах интерполяции, предполагая, что сплайн имеет нулевую кривизну при $x = x_0$ и $x = x_4$. Вычислить значение функции в точке $x = X^*$.

1. $X^* = 1.5$

i	0	1	2	3	4
x_i	0.0	1.0	2.0	3.0	4.0
f_i	0.0	0.5	0.86603	1.0	0.86603

2. $X^* = 1.5$

i	0	1	2	3	4
x_i	0.0	1.0	2.0	3.0	4.0
f_i	1.0	0.86603	0.5	0.0	-0.5

3. $X^* = 1.5$

i	0	1	2	3	4
x_i	0.0	0.9	1.8	2.7	3.6
f_i	0.0	0.36892	0.85408	1.7856	6.3138

4. $X^* = 2.66666667$

i	0	1	2	3	4
x_i	1.0	1.9	2.8	3.7	4.6
f_i	2.4142	1.0818	0.50953	.11836	-0.24008

5. $X^* = 0.8$

i	0	1	2	3	4
x_i	0.1	0.5	0.9	1.3	1.7
f_i	-2.3026	-0.69315	-0.10536	0.26236	0.53063

6. $X^* = -0.5$

i	0	1	2	3	4
x_i	-2.0	-1.0	0.0	1.0	2.0
f_i	0.13534	0.36788	1.0	2.7183	7.3891

7. $X^* = 3.0$

i	0	1	2	3	4
x_i	0.0	1.7	3.4	5.1	6.8
f_i	0.0	1.3038	1.8439	2.2583	2.6077

8. $X^* = 0.1$

i	0	1	2	3	4
x_i	-0.4	-0.1	0.2	0.5	0.8
f_i	-0.41152	-0.10017	0.20136	0.52360	0.92730

9. $X^* = 0.1$

i	0	1	2	3	4
x_i	-0.4	-0.1	0.2	0.5	0.8
f_i	1.9823	1.6710	1.3694	1.0472	0.64350

10. $X^* = -0.5$

i	0	1	2	3	4
x_i	-3.0	-1.0	1.0	3.0	5.0
f_i	-1.2490	-0.78540	0.78540	1.2490	1.3734

11. $X^* = -0.5$

i	0	1	2	3	4
x_i	-3.0	-1.0	1.0	3.0	5.0
f_i	2.8198	2.3562	0.78540	0.32175	0.19740

12. $X^* = 0.8$

i	0	1	2	3	4
x_i	0.0	0.5	1.0	1.5	2.0
f_i	0.0	0.97943	1.8415	2.4975	2.9093

13. $X^* = 1.5$

i	0	1	2	3	4
x_i	0.0	1.0	2.0	3.0	4.0
f_i	1.0	1.5403	1.5839	2.01	3.3464

14. $X^* = 1.5$

i	0	1	2	3	4
x_i	0.0	0.9	1.8	2.7	3.6
f_i	0.0	0.72235	1.5609	2.8459	7.7275

15. $X^* = 2.66666667$

i	0	1	2	3	4
x_i	1.0	1.9	2.8	3.7	4.6
f_i	2.8069	1.8279	1.6091	1.5713	1.5663

16. $X^* = 0.8$

i	0	1	2	3	4
x_i	0.1	0.5	0.9	1.3	1.7
f_i	-2.2026	-0.19315	0.79464	1.5624	2.2306

17. $X^* = -0.5$

i	0	1	2	3	4
x_i	-2.0	-1.0	0.0	1.0	2.0
f_i	-1.8647	-0.63212	1.0	3.7183	9.3891

18. $X^* = 3.0$

i	0	1	2	3	4
x_i	0.0	1.7	3.4	5.1	6.8
f_i	0.0	3.0038	5.2439	7.3583	9.4077

19. $X^* = 0.1$

i	0	1	2	3	4
x_i	-0.4	-0.1	0.2	0.5	0.8
f_i	-0.81152	-0.20017	0.40136	1.0236	1.7273

20. $X^* = 0.1$

i	0	1	2	3	4
x_i	-0.4	-0.1	0.2	0.5	0.8
f_i	1.5823	1.5710	1.5694	1.5472	1.4435

21. $X^* = -0.5$

i	0	1	2	3	4
x_i	-3.0	-1.0	1.0	3.0	5.0
f_i	-4.2490	-1.7854	1.7854	4.2490	6.3734

22. $X^* = -0.5$

i	0	1	2	3	4
x_i	-3.0	-1.0	1.0	3.0	5.0
f_i	-0.18016	1.3562	1.7854	3.3218	5.1974

23. $X^* = 0.8$

i	0	1	2	3	4
x_i	0.1	0.5	0.9	1.3	1.7
f_i	10.0	2.0	1.1111	0.76923	0.58824

24. $X^* = 0.8$

i	0	1	2	3	4
x_i	0.1	0.5	0.9	1.3	1.7
f_i	100.00	4.0	1.2346	0.59172	0.34602

25. $X^* = 0.8$

i	0	1	2	3	4
x_i	0.1	0.5	0.9	1.3	1.7
f_i	10.1	2.5	2.0111	2.0692	2.2882

26. $X^* = 0.8$

i	0	1	2	3	4
x_i	0.1	0.5	0.9	1.3	1.7
f_i	100.01	4.2500	2.0446	2.2817	3.2360

27. $X^* = 1.5$

i	0	1	2	3	4
x_i	0.0	1.0	2.0	3.0	5.0
f_i	0.0	0.26180	0.90690	1.5708	1.3090

28. $X^* = 1.5$

i	0	1	2	3	4
x_i	0.0	1.0	2.0	3.0	5.0
f_i	0.0	0.45345	0.52360	0.0	-2.2672

29. $X^* = -0.5$

i	0	1	2	3	4
x_i	-2.0	-1.0	0.00	1.0	2.0
f_i	-0.27067	-0.36788	0.00	2.7183	14.778

30. $X^* = -0.5$

i	0	1	2	3	4
x_i	-1.2	-0.7	-0.2	0.3	0.8
f_i	0.43372	0.24333	0.32749E-01	0.12149	1.4243