

Euler's Method Key

1.

Step	Y_Begin	T_Begin	Slope	Y_Stop	T_Stop
1	0	1	-1	-0.5	1.05
2	-0.5	1.05	-2	-1.5	1.1

(1.1,-1.5)

2.

Step	Y_Begin	T_Begin	Slope	Y_Stop	T_Stop
1	4	0	-7	-3	1
2	-3	1	6.540302	3.540302	2

(2,3.540302)

3.

Step	Y_Begin	T_Begin	Slope	Y_Stop	T_Stop
1	4	1	-1	3.9	1.1
2	3.9	1.1	-0.92453	3.807547	1.2
3	3.807547	1.2	-0.85388	3.722159	1.3
4	3.722159	1.3	-0.78787	3.643372	1.4
5	3.643372	1.4	-0.72629	3.570744	1.5

(1.5,3.570744)

4.

Step	Y_Begin	T_Begin	Slope	Y_Stop	T_Stop
1	1	2	0	1	2.333333
2	1	2.333333	-0.33333	0.888889	2.666667
3	0.888889	2.666667	-0.32922	0.77915	3

(3.0.77915)

5.

Step	Y_Begin	T_Begin	Slope	Y_Stop	T_Stop
1	0	1	1	0.4	1.4
2	0.4	1.4	2.12	1.248	1.8
3	1.248	1.8	4.797504	3.167002	2.2
4	3.167002	2.2	14.8699	9.114961	2.6
5	9.114961	2.6	89.84252	45.05197	3

(3,45.05197)

6.

Step	Y_Begin	T_Begin	Slope	Y_Stop	T_Stop
1	1	0	1	1.1	0.1

2	1.1	0.1	0.89	1.189	0.2
3	1.189	0.2	0.7622	1.26522	0.3
4	1.26522	0.3	0.620434	1.327263	0.4
5	1.327263	0.4	0.469095	1.374173	0.5
6	1.374173	0.5	0.312914	1.405464	0.6
7	1.405464	0.6	0.156721	1.421136	0.7
8	1.421136	0.7	0.005205	1.421657	0.8
9	1.421657	0.8	-0.13733	1.407924	0.9
10	1.407924	0.9	-0.26713	1.381211	1

(1,1.381211)

7.

Step	Y_Begin	T_Begin	Slope	Y_Stop	T_Stop
1	1	3	-9	-0.8	3.2
2	-0.8	3.2	-9.14286	-2.62857	3.4
3	-2.62857	3.4	11.92003	-0.24456	3.6
4	-0.24456	3.6	-9.86755	-2.21807	3.8
5	-2.21807	3.8	47.0944	7.200805	4
6	7.200805	4	1.003101	7.401425	4.2
7	7.401425	4.2	1.04212	7.609849	4.4
8	7.609849	4.4	1.077355	7.82532	4.6
9	7.82532	4.6	1.109099	8.04714	4.8
10	8.04714	4.8	1.137657	8.274672	5
11	8.274672	5	1.163328	8.507337	5.2
12	8.507337	5.2	1.186402	8.744618	5.4
13	8.744618	5.4	1.207148	8.986047	5.6
14	8.986047	5.6	1.225813	9.23121	5.8
15	9.23121	5.8	1.242624	9.479735	6
16	9.479735	6	1.257783	9.731291	6.2
17	9.731291	6.2	1.271472	9.985586	6.4
18	9.985586	6.4	1.283853	10.24236	6.6
19	10.24236	6.6	1.295068	10.50137	6.8
20	10.50137	6.8	1.305247	10.76242	7

(7,10.76242)