

Console

n	xn f(Xn+1)	f(xn) Xn+2	Xn+1 Error
0	20000.000000 -0.0000314913	0.0000091621 21126.855071	25000.000000 1126.8550706981
1	25000.000000 -0.0000058351	-0.0000314913 20245.964378	21126.855071 4754.0356221965
2	21126.855071 0.0000052892	-0.0000058351 20664.795966	20245.964378 462.0591048992
3	20245.964378 -0.0000004589	0.0000052892 20631.357459	20664.795966 385.3930807826
4	20664.795966 -0.0000000338	-0.0000004589 20628.699506	20631.357459 36.0964596388
5	20631.357459 0.0000000002	-0.0000000338 20628.717540	20628.699506 2.6399184217
6	20628.699506 -0.0000000000	0.0000000002 20628.717531	20628.717540 0.0180249910
7	20628.717540 -0.0000000000	-0.0000000000 20628.717531	20628.717531 0.0000090133

Therefore, $R_b = 20628.7175311511 \text{ ohm}$