

Test Result									
t	S0	r	sigma	Delta_t	N	Sample mean	Sample std	Real mean	Real std
1	1	0.0	1.0	0.005	1000	0.9147	1.0779	1	1.3108
1	1	0.0	1.0	0.005	5000	1.0329	1.4094	1	1.3108
1	1	0.0	1.0	0.002	10000	0.9882	1.2116	1	1.3108

Test Result									
t	S0	r	sigma	Delta_t	N	Sample mean	Sample std	Real mean	Real std
3	1	0.0	1.0	0.005	1000	0.9397	3.1375	1	4.3687
3	1	0.0	1.0	0.005	5000	0.9761	3.3615	1	4.3687
3	1	0.0	1.0	0.002	10000	1.0016	3.9988	1	4.3687

When $t=1$, we change (Δ_t, N) from $(0.005, 1000)$ to $(0.002, 10000)$, the results converge to the answers we calculated quickly. As t increase to 3, when we do the same changes to (Δ_t, N) , the results of sample std do not converge to the real std, indicating that the work needed to get an accurate estimate increases as t increases.