======HW 9.D Report======

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b) Simulated SD/SE for different NT/NSIM

(Batch 1: The exact Put Price is 5.84628, The exact Call Price is 2.13337)

Batch 1	NT	NSIM	Put SD	Put SE	Call SD	Call SE
	100	10000	6.0547	0.060547	4.54234	0.0454234
	100	100000	6.05775	0.0191563	4.51298	0.0142713
	100	500000	6.04317	0.00854633	4.52284	0.00639626
	300	10000	6.05763	0.061023	4.59511	0.0459511
	300	100000	6.04892	0.0193365	4.54733	0.0143799
	300	500000	6.05213	0.00847786	4.52713	0.00640233

(Batch 2: The exact Put price is 7.96557, The exact Call Price is 7.96557)

Batch 1	NT	NSIM	Put SD	Put SE	Call SD	Call SE
	100	10000	10.435	0.10435	13.212	0.13212
	100	100000	10.4359	0.0330012	13.1477	0.0415767
	100	500000	10.4019	0.0147105	13.17	0.0186253
	300	10000	10.4754	0.104754	13.3135	0.133135
	300	100000	10.4292	0.0329801	13.2328	0.0418458
	300	500000	10.4241	0.0147419	13.1421	0.0185857

Observation 1: SD depends on neither NT nor NSIM
Observation 2: SE depends on NSIM but not NT. SE will decrease while NSIM increases.
Observation 3: SD doesn't have any correlation with accuracy.
Observation 4: When SE is smaller, the simulation tends to have higher accuracy.