



15. 兩個相關母體相關係數檢定。

X1	X2
991.5728962873	1003.3337673038
998.7949012128	989.2334302436
1001.7920973545	1013.3441817089
1018.3610929558	1020.8358140391
1010.7238893233	1006.1342014414
998.6001683246	1006.7819447387
991.2329518944	998.0499961136
1003.6309731240	1012.9856194885
995.2645287811	982.6599965277
988.9112098527	1006.1073989241
1009.7944541181	998.4114768191
1002.2225505964	999.3150743408
1001.1523557123	1009.3361519594
1008.1844612612	1003.9732339675
993.0610726505	1002.7021449996
1003.6179076837	990.9356702424
995.5021667351	1001.8980798944
1002.2818514016	993.5486767107
1004.5352348070	1002.3135626829
1009.6692590884	1023.4261875987
984.2222179855	984.9320824062
993.0989352956	976.3227062399
984.4021828664	987.8991033309
987.5107597801	996.9020566804
991.0192352079	1000.4147667635
1002.2660870046	986.0586304771
996.9903809592	1010.4649694731
1009.1806846220	1005.0517915240
995.6465863865	988.7108707048
996.9986255337	1014.4534812495
1003.0046067459	988.7085965792
1029.3390498336	1013.7129086107
1001.0850646631	1007.1355710446
1004.3775901504	991.2754040026
982.7751382618	990.7892904278
1016.8093526000	1028.1990387491
996.2159288053	1006.6898007571
1014.6290665478	1010.3012778061
1014.9021673844	1000.7882499655
1003.4525074257	998.1843648496
986.7230543172	971.2459015386
999.8637519169	1013.8594000294
1008.7080321385	1010.0250825887
998.7926631054	995.6780730050
1016.5216987419	1021.2316437364
993.6320875234	993.2961751122
992.8765526174	973.0611062901
1005.4161282048	1012.2001202220
1003.7446522466	1031.0607936671
999.7602666483	988.4550480342
1002.8562984048	1013.6510055961
979.3981927073	990.6086818647
1005.0721359529	1021.5576083875
998.6860624217	977.8531514090
985.9624170570	987.6627339151
993.5495970534	1000.9487310033
976.0449844708	973.9109316479
1004.9942427129	997.5554357509
1010.4870040216	1003.8669178423
996.8639177042	1006.0623795745
986.9395058631	977.5871995328
994.5437195517	987.9098282053
984.6647660636	978.8777541253
1012.4450867457	1018.2846949445
970.5801145481	973.6965863509
1000.9660270115	1017.5107852489
990.8257522086	979.9367705026
989.2676074629	993.7712510091
1005.7594241250	1011.7010547849
1002.1754992613	1022.4276388238
1011.0500120810	1012.5820173817
996.6846878451	1008.1071227596



1003.8221493157	1014.5154950808
1003.9142593714	1008.5152997577
1005.4401817957	1000.0669565018
1023.6982933682	1024.5364966497
1010.4713492576	1024.4869762538
998.7786862577	1005.3646885901
981.0314382493	977.8216958540
978.5791310679	982.6836893432
996.6904512454	992.7209145287
991.2834328019	989.6329163288
1006.1419876125	1032.8779188075
1007.5154441654	980.5522855006
993.6049716398	1002.7012592689
994.4773904256	980.2845901777
1017.4794281775	1018.3077666884
998.7245177087	1008.6484552473
998.8598877864	1019.3631225450
993.8579441765	1000.0257079312
984.0433589393	967.4877132670
1005.0613679823	992.3470450454
1005.0317117222	1009.6152206314
999.4336814898	1007.8743419484
1009.7360665254	1000.2476341399
992.8319487124	994.9633381448
1008.4193986928	1001.1753910538
1005.5041159627	1013.1541411612
990.9918978260	1001.7163359780
996.8352972412	986.9756363877

X1 is Normal($\mu=1000.000000$, $\sigma*\sigma=100.000000$),

X2 is Normal($\mu=H1$, $\sigma*\sigma=100.000000$),

$H1(X1)= X1$.

X1 is mean=999.4494792348, s.d.= 10.3666498745, variance=107.4674296195, skewed coefficient=-0.0580206783, kurtosis coefficient=3.2509536245, MAD=8.0918871366, Q1=993.0800039731, median=999.5969740691, Q3=1005.4401817957, MIN=970.5801145481, MAX=1029.3390498336, Range=58.7589352855, Mid-Range=999.9595821908, C.V.= 0.0103723601, sample size=100,

X2 is mean=1000.5716822908, s.d.= 14.6993698562, variance=216.0714741707, skewed coefficient=-0.1086356594, kurtosis coefficient=2.3555744891, MAD=11.9520024553, Q1=989.4331732862, median=1001.4458635159, Q3=1011.7010547849, MIN=967.4877132670, MAX=1032.8779188075, Range=65.3902055405, Mid-Range=1000.1828160372, C.V.= 0.0146909713, sample size=100,

two populations correlation coefficient test

$H0: \rho(X1,X2)=0.000000$

$r(X1,X2)=0.662084$,n=100

left tail test p-value= 1.0000

right tail test p-value= 0.0000

two tailes test p-value= 0.0000

90% confidence interval for $r(X1,X2)$ under $\rho(X1,X2)=0.000000$

[-0.165352 , 0.165369]

95% confidence interval for $r(X1,X2)$ under $\rho(X1,X2)=0.000000$

[-0.196425 , 0.196557]

99% confidence interval for $r(X1,X2)$ under $\rho(X1,X2)=0.000000$

[-0.256310 , 0.256576]



two populations correlation coefficient test
H0: $\rho(X1,X2)=0.600000$
 $r(X1,X2)=0.662084$,n=100
left tail test p-value= 0.8391
right tail test p-value= 0.1609
two tails test p-value= 0.3218
90% confidence interval for $r(X1,X2)$ under $\rho(X1,X2)=0.600000$
[0.484943 , 0.697837]
95% confidence interval for $r(X1,X2)$ under $\rho(X1,X2)=0.600000$
[0.460057 , 0.713956]
99% confidence interval for $r(X1,X2)$ under $\rho(X1,X2)=0.600000$
[0.409003 , 0.743564]

two populations correlation coefficient test
H0: $\rho(X1,X2)=0.600000$
 $r(X1,X2)=0.662084$,n=100
left tail test p-value= 0.8390
right tail test p-value= 0.1610
two tails test p-value= 0.3220
90% confidence interval for $r(X1,X2)$ under $\rho(X1,X2)=0.600000$
[0.484902 , 0.697814]
95% confidence interval for $r(X1,X2)$ under $\rho(X1,X2)=0.600000$
[0.459965 , 0.713959]
99% confidence interval for $r(X1,X2)$ under $\rho(X1,X2)=0.600000$
[0.408841 , 0.743477]

two populations correlation coefficient test
H0: $\rho(X1,X2)=0.700000$
 $r(X1,X2)=0.662084$,n=100
left tail test p-value= 0.2312
right tail test p-value= 0.7688
two tails test p-value= 0.4624
90% confidence interval for $r(X1,X2)$ under $\rho(X1,X2)=0.700000$
[0.606955 , 0.776953]
95% confidence interval for $r(X1,X2)$ under $\rho(X1,X2)=0.700000$
[0.586267 , 0.789391]
99% confidence interval for $r(X1,X2)$ under $\rho(X1,X2)=0.700000$
[0.543371 , 0.812047]