5 999990 5

Avg time with sp\_data: 0.0623564 seconds

Avg time without sp\_data: 0.0532879 seconds

500 999000 500

Avg time with sp\_data: 0.0556332 seconds

Avg time without sp\_data: 0.0531439 seconds

1000 998000 1000

Avg time with sp\_data: 0.0485441 seconds

Avg time without sp\_data: 0.126398 seconds

1500 997000 1500

Avg time with sp\_data: 0.0593722 seconds

Avg time without sp\_data: 0.106054 seconds

2000 996000 2000

Avg time with sp\_data: 0.0538164 seconds

Avg time without sp\_data: 0.0838128 seconds

2500 995000 2500

Avg time with sp\_data: 0.0631001 seconds

Avg time without sp\_data: 0.112452 seconds

3000 994000 3000

Avg time with sp\_data: 0.0352528 seconds

Avg time without sp\_data: 0.0868519 seconds

Avg time with sp\_data: 0.028619 seconds

Avg time without sp\_data: 0.0940369 seconds

3500 993000 3500

Avg time with sp\_data: 0.0492706 seconds

Avg time without sp\_data: 0.138585 seconds

4000 992000 4000

Avg time with sp\_data: 0.0468029 seconds

Avg time without sp\_data: 0.0998189 seconds

4500 991000 4500

Avg time with sp\_data: 0.0527093 seconds

Avg time without sp\_data: 0.0816657 seconds

5000 990000 5000

Avg time with sp\_data: 0.0394775 seconds

Avg time without sp\_data: 0.0446369 seconds

10000 980000 10000

Avg time with sp\_data: 0.0709001 seconds

Avg time without sp\_data: 0.0705764 seconds

15000 970000 15000

Avg time with sp\_data: 0.0325019 seconds

Avg time without sp\_data: 0.0804572 seconds

20000 960000 20000

Avg time with sp\_data: 0.0378691 seconds

Avg time without sp\_data: 0.111449 seconds

25000 950000 25000

Avg time with sp\_data: 0.0471651 seconds

Avg time without sp\_data: 0.0684939 seconds

30000 940000 30000

Avg time with sp\_data: 0.0582623 seconds

Avg time without sp\_data: 0.0753111 seconds

35000 930000 35000

0.0580406 0.114029

40000 920000 40000

0.0344585 0.143375

45000 910000 45000

0.0509165 0.117701

50000 900000 50000

0.0774496 0.103904

75000 850000 75000

0.0602369 0.0929663

100000 800000 100000

0.040212 0.0973703

125000 750000 125000

0.0543906 0.0848177

150000 700000 150000

0.0535276 0.0332088

175000 650000 175000

0.0499113 0.040879

200000 600000 200000

0.0637841 0.0422718

225000 550000 225000

0.0468621 0.0534749

250000 500000 250000

0.0667868 0.0479781

275000 450000 275000

0.0434394 0.0364495

300000 400000 300000

0.058857 0.0426009

50M data

range1(0.0, 100000.0);

range2(110000.0, 190000.0);

range3(200000.0, 300000.0);

1. 0 : 1 : 0

TIME LOOKING UP: 5.667e+09 nanosec

1. 0.005 : 0.99 : 0.005

TIME LOOKING UP: 4.270e+09 nanosec

1. 0.01 : 0.98 : 0.01

TIME LOOKING UP: 4.467e+09 nanosec

1. 0.015 : 0.97 : 0.015

TIME LOOKING UP: 4.275e+09 nanosec

1. 0.02 : 0.96 : 0.02

TIME LOOKING UP: 5.807e+09 nanosec

1. 0.025 : 0.95 : 0.025

TIME LOOKING UP: 4.875e+09 nanosec

1. 0.05 : 0.9 : 0.05

TIME LOOKING UP: 4.640e+09 nanosec

1. 0.1 : 0.8 : 0.1

TIME LOOKING UP: 4.728e+09 nanosec

1. 0.15 : 0.7 : 0.15

TIME LOOKING UP: 5.361e+09 nanosec

1. 0.2 : 0.6 : 0.2

TIME LOOKING UP: 5.217e+09 nanosec

50M 50次搜尋50M筆平均

range1(0.0, 100.0); range2(10000.0, 11000.0); range3(1000000.0, 1000100.0);

1. 0 : 1 : 0

TIME LOOKING UP: 6.496e+09 nanosec

1. 0.005 : 0.99 : 0.005

TIME LOOKING UP: 7.98e+09 nanosec

1. 0.01 : 0.98 : 0.01

TIME LOOKING UP: 8.727e+09 nanosec

1. 0.015 : 0.97 : 0.015

TIME LOOKING UP: 9.402e+09 nanosec

1. 0.02 : 0.96 : 0.02

TIME LOOKING UP: 9.733e+09 nanosec

1. 0.025 : 0.95 : 0.025

TIME LOOKING UP: 7.011e+09 nanosec

TIME LOOKING UP: 7.390e+09 nanosec

TIME LOOKING UP: 6.568e+09 nanosec

TIME LOOKING UP: 6.583e+09 nanosec

TIME LOOKING UP: 6.511e+09 nanosec

TIME LOOKING UP: 7.045e+09 nanosec

TIME LOOKING UP: 7.284e+09 nanosec

TIME LOOKING UP: 7.375e+09 nanosec

6.970e+09

1. 0.03 : 0.94 : 0.03

TIME LOOKING UP: 7.047e+09 nanosec

1. 0.035 : 0.93 : 0.035

TIME LOOKING UP: 7.394e+09 nanosec

1. 0.04 : 0.92 : 0.04

TIME LOOKING UP: 6.836e+09 nanosec

1. 0.045 : 0.91 : 0.045

TIME LOOKING UP: 6.907e+09 nanosec

1. 0.05 : 0.9 : 0.05

TIME LOOKING UP: 7.987e+09 nanosec

1. 0.1 : 0.8 : 0.1

TIME LOOKING UP: 8.263e+09 nanosec

1. 0.15 : 0.7 : 0.15

TIME LOOKING UP: 9.105e+09 nanosec

TIME LOOKING UP: 7.188e+09 nanosec

TIME LOOKING UP: 7.028e+09 nanosec

1. 0.2 : 0.6 : 0.2

TIME LOOKING UP: 1.044e+10 nanosec