Circuit For Computing Error Probability of Majority Voting

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Abstract

In this article a DC uniform circuit for computation of error probability in majority voting is constructed and thus shown to be in PH. This error probability in majority voting is nothing but the RHS of the P(good) equation published earlier as mentioned in bibliography.

1 Derivation of P(good) expression

In a distributed systems (e.g cloud computing environments) with 2n nodes, the leader is elected by a majority voting if it obtains $n+1$ or more votes. We would like to bound the probability that such an outcome of a majority vote is good. This is precisely the probability that atleast $n+1$ nodes have made a good decision. Assumption here is that a good majority decision by majority of the nodes with high probability also results in a good outcome in the majority voting (rather it is trivial and is accepted axiomatically without proof). Thus by probability union bound,

```
Pr(leader elected by majority voting is good) =
Pr(atleast n+1 nodes have made a good decision)

= Pr (n+1 nodes have made good decision) +
  Pr(n+2 nodes have made good decision) +
... +
  Pr(2n nodes have made good decision)
  - (0 for intersection probability)

If Pr(good decision by a node) = 0.5
(assuming a uniform distribution and thus good and bad
decisions are equally probable) then LHS of the P(Good)
equation is 0.5 and the RHS is obtained
through the series distribution as,

= 2nC(n+1) (0.5)^(n+1)(0.5)^(n-1) + ... + 2nC2n (0.5)^(2n)
= (0.25)^n [ 2nC(n+1) + 2nC(n+2) + ... + 2nC(2n) ]
= (2n)!/(4^n) [ 1/(n+1)!(n-1)! +1/(n-2)!(n+2)! + ... + 1/(2n)!]
```

This series tends to 0.5 which can be confirmed by simple convergence test. The fraction $[nthterm - (n-1)thterm]/n$ tends to zero as n tends to infinity. Output of a computer program which computes the above is in appendix. For odd number of nodes, probability can be analogously derived by rounding off to nearest integer to get past the halfway point. For odd number of the voter population, say m, the halfway point is $ceiling(m/2)$. Let $x = ceiling(m/2)$. Thus above series becomes,

```
= mC(x+1) (0.5)^m + mC(x+2) (0.5)^m + ... + mCm(0.5)^m
= (0.5)^m [ mC(x) + mC(x+1) + ... + mCm ]
= m!/(2^m) [ 1/x!(m-x)! + ... + 1/m! ]
```

Assumption here is that a good majority decision with high probability also results in a good outcome in the majority voting (rather it is trivial and is stated without proof).

2 A simple majority voting example with 5 voters

Following are the 32 possible voting patterns in terms of nature of individual decision for 5 voters to elect a leader (0 means voter has made bad decision and 1 means voter has made good decision):

```
00000, 10000
00001, 10001
00010, 10010
00011, 10011
00100, 10100
00101, 10101
00110, 10110
00111, 10111
01000, 11000
01001, 11001
01010, 11010
01011, 11011
01100, 11100
01101, 11101
01110, 11110
01111, 11111
```

From the above the probability that atleast $celing(5/2)$ (or more than or equal to 3 in above example) voters have made a good decision, can be computed easily by glancing. Out of 32 patterns, 16 have 3 or more 1s (good decisions). Thus the probability that elected leader is good is 16/32. This can be derived from above series also as,

```
= 1/32 [5C3 + 5C4 + 5C5]
= 16/32 = 0.5
```

3 Circuit for computing P(Good) error probability from voter decision patterns

Complexity of computing above series in RHS of P(Good) equation is exponential in n because of computation of factorials (can be approximated by Stirling's formula). P(Good) series implies that any leader election algorithm that involves majority voting (under zero bias space where $Pr[decision = 1]Pr[decision = 0] = 0$) is no better than a (pseudo)random choice. Translating P(good) series into circuit requires computation of majority function on 2^{2n} possible inputs corresponding to all possible voting patters by the $2n$ voters.

Following is the algorithm for drawing the above circuit:

1. Have 2^{2n} majority circuits. Each of these majority circuit takes as input one voting voting decision bit pattern each with each bit as a decision(good or bad) input for corresponding voter(as explained in example above). Majority function can be computed in polynomial size by sorting networks (Ajtai et al) or through non-uniform NC1 circuit (Barrington) or Valiant's non-constructive majority circuit of size n^5.3. Thus each majority circuit computes the majority of the voting pattern and outputs 1 or 0 depending on which of the bits are in majority (1 means majority decision is good and 0 means bad for that voting pattern). Thus 2^{2n} majority circuits compute the majority of each of the 2^{2n} voting bit patterns and output 0 or 1.

2. An addition circuit then adds up the 2^{2n} bits output by all of the above majority circuits. This addition circuit has exponential fan-in and thus exponential in n and thus NC1 cannot compute this addition which requires bounded fanin ,logdepth and polysize circuit. Exponential sized circuits are in DC-uniform family characterized by Polynomial Hierarchy(PH) which is defined as circuit having AND,OR and NOT gates and size 2^{2n} with unbounded fanin.

3. Output of the above addition circuit is the numerator of the P(Good) fraction. Thus a division circuit is needed to divide this numerator by denominator which is 2^{2n}. Division can be performed in TC0. Thus summing up we have a 3 step circuit ($NC1+DC-uniform+TC0$). Subsuming NC1 and TC0 in DC-uniform gives a DC-uniform exponential sized circuit to compute the P(Good) RHS probability.

4 Conclusion

Thus a series expression for the error probability in majority voting has been derived and a DC-uniform circuit has been constructed for it.

5 Appendix for P(Good) computation with even number voter population output by a computer program (probability is in percentage)

```
Probability of good choice for population of 0=0
prob - prevprob = 0
sumdiff - prevsumdiff = 0
Probability of good choice for population of 2=25
prob - prevprob = 0.25
sumdiff - prevsumdiff = 0.25
Probability of good choice for population of 4=31.25
prob - prevprob = 0.0625
sumdiff - prevsumdiff = -0.1875
Probability of good choice for population of 6=34.375
prob - prevprob = 0.03125
sumdiff - prevsumdiff = -0.03125
Probability of good choice for population of 8=36.3281
prob - prevprob = 0.0195312
sumdiff - prevsumdiff = -0.0117188
Probability of good choice for population of 10=37.6953
```

```
prob - prevprob = 0.0136719
sumdiff - prevsumdiff = -0.00585938
Probability of good choice for population of 12=38.7207
prob - prevprob = 0.0102539
sumdiff - prevsumdiff = -0.00341797
Probability of good choice for population of 14=39.5264
prob - prevprob = 0.00805664
sumdiff - prevsumdiff = -0.00219727
Probability of good choice for population of 16=40.181
prob - prevprob = 0.00654602
sumdiff - prevsumdiff = -0.00151062
Probability of good choice for population of 18=40.7265
prob - prevprob = 0.00545502
sumdiff - prevsumdiff = -0.001091
Probability of good choice for population of 20=41.1901
prob - prevprob = 0.00463676
sumdiff - prevsumdiff = -0.000818253
Probability of good choice for population of 22=41.5906
prob - prevprob = 0.00400448
sumdiff - prevsumdiff = -0.000632286
Probability of good choice for population of 24=41.941
prob - prevprob = 0.00350392
sumdiff - prevsumdiff = -0.00050056
Probability of good choice for population of 26=42.2509
prob - prevprob = 0.00309962
sumdiff - prevsumdiff = -0.000404298
Probability of good choice for population of 28=42.5277
prob - prevprob = 0.00276752
sumdiff - prevsumdiff = -0.000332102
Probability of good choice for population of 30=42.7768
prob - prevprob = 0.00249077
sumdiff - prevsumdiff = -0.000276752
Probability of good choice for population of 32=43.0025
prob - prevprob = 0.00225726
sumdiff - prevsumdiff = -0.000233509
Probability of good choice for population of 34=43.2083
prob - prevprob = 0.00205809
sumdiff - prevsumdiff = -0.00019917
Probability of good choice for population of 36=43.397
prob - prevprob = 0.00188658
sumdiff - prevsumdiff = -0.000171507
Probability of good choice for population of 38=43.5707
prob - prevprob = 0.00173764
sumdiff - prevsumdiff = -0.000148941
Probability of good choice for population of 40=43.7315
prob - prevprob = 0.00160732
sumdiff - prevsumdiff = -0.000130323
Probability of good choice for population of 42=43.8807
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prob - prevprob = 0.00149251
sumdiff - prevsumdiff = -0.000114808
Probability of good choice for population of 44=44.0198
prob - prevprob = 0.00139075
sumdiff - prevsumdiff = -0.000101762
Probability of good choice for population of 46=44.1498
prob - prevprob = 0.00130005
sumdiff - prevsumdiff = -9.07008e-005
Probability of good choice for population of 48=44.2717
prob - prevprob = 0.00121879
sumdiff - prevsumdiff = -8.12528e-005
Probability of good choice for population of 50=44.3862
prob - prevprob = 0.00114567
sumdiff - prevsumdiff = -7.31276e-005
Probability of good choice for population of 52=44.4942
prob - prevprob = 0.00107957
sumdiff - prevsumdiff = -6.60961e-005
Probability of good choice for population of 54=44.5962
prob - prevprob = 0.00101959
sumdiff - prevsumdiff = -5.99761e-005
Probability of good choice for population of 56=44.6927
prob - prevprob = 0.000964972
sumdiff - prevsumdiff = -5.4621e-005
Probability of good choice for population of 58=44.7842
prob - prevprob = 0.00091506
sumdiff - prevsumdiff = -4.99123e-005
Probability of good choice for population of 60=44.8711
prob - prevprob = 0.000869307
sumdiff - prevsumdiff = -4.5753e-005
Probability of good choice for population of 62=44.9538
prob - prevprob = 0.000827243
sumdiff - prevsumdiff = -4.20632e-005
Probability of good choice for population of 64=45.0327
prob - prevprob = 0.000788466
sumdiff - prevsumdiff = -3.8777e-005
Probability of good choice for population of 66=45.1079
prob - prevprob = 0.000752627
sumdiff - prevsumdiff = -3.58394e-005
Probability of good choice for population of 68=45.1799
prob - prevprob = 0.000719423
sumdiff - prevsumdiff = -3.32041e-005
Probability of good choice for population of 70=45.2487
prob - prevprob = 0.00068859
sumdiff - prevsumdiff = -3.08324e-005
Probability of good choice for population of 72=45.3147
prob - prevprob = 0.000659899
sumdiff - prevsumdiff = -2.86913e-005
Probability of good choice for population of 74=45.378
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prob - prevprob = 0.000633146
sumdiff - prevsumdiff = -2.67527e-005
Probability of good choice for population of 76=45.4388
prob - prevprob = 0.000608154
sumdiff - prevsumdiff = -2.49926e-005
Probability of good choice for population of 78=45.4973
prob - prevprob = 0.000584763
sumdiff - prevsumdiff = -2.33905e-005
Probability of good choice for population of 80=45.5536
prob - prevprob = 0.000562835
sumdiff - prevsumdiff = -2.19286e-005
Probability of good choice for population of 82=45.6078
prob - prevprob = 0.000542243
sumdiff - prevsumdiff = -2.05915e-005
Probability of good choice for population of 84=45.6601
prob - prevprob = 0.000522877
sumdiff - prevsumdiff = -1.93658e-005
Probability of good choice for population of 86=45.7106
prob - prevprob = 0.000504637
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Probability of good choice for population of 88=45.7593
prob - prevprob = 0.000487434
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Probability of good choice for population of 90=45.8064
prob - prevprob = 0.000471186
sumdiff - prevsumdiff = -1.62478e-005
Probability of good choice for population of 92=45.852
prob - prevprob = 0.000455821
sumdiff - prevsumdiff = -1.53648e-005
Probability of good choice for population of 94=45.8962
prob - prevprob = 0.000441274
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Probability of good choice for population of 96=45.9389
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Probability of good choice for population of 98=45.9803
prob - prevprob = 0.000414398
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Probability of good choice for population of 100=46.0205
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Probability of good choice for population of 102=46.0596
prob - prevprob = 0.000390143
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Probability of good choice for population of 104=46.0974
prob - prevprob = 0.000378889
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Probability of good choice for population of 106=46.1343
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Probability of good choice for population of 110=46.2049
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Probability of good choice for population of 114=46.2717
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Probability of good choice for population of 196=47.154
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Probability of good choice for population of 202=47.1965
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Probability of good choice for population of 228=47.3608
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Probability of good choice for population of 230=47.3723
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Probability of good choice for population of 232=47.3836
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Probability of good choice for population of 234=47.3948
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Probability of good choice for population of 256=47.509
prob - prevprob = 9.76845e-005
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Probability of good choice for population of 258=47.5187
prob - prevprob = 9.65487e-005
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Probability of good choice for population of 260=47.5282
prob - prevprob = 9.54346e-005
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Probability of good choice for population of 262=47.5377
prob - prevprob = 9.43419e-005
sumdiff - prevsumdiff = -1.09276e-006
Probability of good choice for population of 264=47.547
prob - prevprob = 9.32698e-005
sumdiff - prevsumdiff = -1.07207e-006
Probability of good choice for population of 266=47.5562
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Probability of good choice for population of 270=47.5744
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Probability of good choice for population of 272=47.5833
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sumdiff - prevsumdiff = -9.94549e-007
Probability of good choice for population of 274=47.5921
prob - prevprob = 8.82015e-005
sumdiff - prevsumdiff = -9.764e-007
Probability of good choice for population of 276=47.6008
prob - prevprob = 8.72428e-005
sumdiff - prevsumdiff = -9.58712e-007
Probability of good choice for population of 278=47.6095
prob - prevprob = 8.63013e-005
sumdiff - prevsumdiff = -9.41469e-007
Probability of good choice for population of 280=47.618
prob - prevprob = 8.53766e-005
sumdiff - prevsumdiff = -9.24657e-007
Probability of good choice for population of 282=47.6264
prob - prevprob = 8.44684e-005
sumdiff - prevsumdiff = -9.08262e-007
Probability of good choice for population of 284=47.6348
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sumdiff - prevsumdiff = -8.92272e-007
Probability of good choice for population of 286=47.6431
prob - prevprob = 8.26994e-005
sumdiff - prevsumdiff = -8.76672e-007
Probability of good choice for population of 288=47.6512
prob - prevprob = 8.1838e-005
sumdiff - prevsumdiff = -8.61452e-007
Probability of good choice for population of 290=47.6593
prob - prevprob = 8.09914e-005
sumdiff - prevsumdiff = -8.466e-007
Probability of good choice for population of 292=47.6674
prob - prevprob = 8.01593e-005
sumdiff - prevsumdiff = -8.32103e-007
Probability of good choice for population of 294=47.6753
prob - prevprob = 7.93413e-005
sumdiff - prevsumdiff = -8.17952e-007
Probability of good choice for population of 296=47.6832
prob - prevprob = 7.85372e-005
sumdiff - prevsumdiff = -8.04135e-007
Probability of good choice for population of 298=47.6909
```

```
prob - prevprob = 7.77466e-005
sumdiff - prevsumdiff = -7.90643e-007
Probability of good choice for population of 300=47.6986
prob - prevprob = 7.69691e-005
sumdiff - prevsumdiff = -7.77466e-007
Probability of good choice for population of 302=47.7062
prob - prevprob = 7.62045e-005
sumdiff - prevsumdiff = -7.64594e-007
Probability of good choice for population of 304=47.7138
prob - prevprob = 7.54525e-005
sumdiff - prevsumdiff = -7.52018e-007
Probability of good choice for population of 306=47.7213
prob - prevprob = 7.47127e-005
sumdiff - prevsumdiff = -7.3973e-007
Probability of good choice for population of 308=47.7287
prob - prevprob = 7.3985e-005
sumdiff - prevsumdiff = -7.27722e-007
Probability of good choice for population of 310=47.736
prob - prevprob = 7.3269e-005
sumdiff - prevsumdiff = -7.15984e-007
Probability of good choice for population of 312=47.7432
prob - prevprob = 7.25645e-005
sumdiff - prevsumdiff = -7.0451e-007
Probability of good choice for population of 314=47.7504
prob - prevprob = 7.18712e-005
sumdiff - prevsumdiff = -6.93292e-007
Probability of good choice for population of 316=47.7575
prob - prevprob = 7.11889e-005
sumdiff - prevsumdiff = -6.82322e-007
Probability of good choice for population of 318=47.7646
prob - prevprob = 7.05173e-005
sumdiff - prevsumdiff = -6.71594e-007
Probability of good choice for population of 320=47.7716
prob - prevprob = 6.98562e-005
sumdiff - prevsumdiff = -6.611e-007
Probability of good choice for population of 322=47.7785
prob - prevprob = 6.92054e-005
sumdiff - prevsumdiff = -6.50834e-007
Probability of good choice for population of 324=47.7854
prob - prevprob = 6.85646e-005
sumdiff - prevsumdiff = -6.40791e-007
Probability of good choice for population of 326=47.7922
prob - prevprob = 6.79336e-005
sumdiff - prevsumdiff = -6.30963e-007
Probability of good choice for population of 328=47.7989
prob - prevprob = 6.73123e-005
sumdiff - prevsumdiff = -6.21344e-007
Probability of good choice for population of 330=47.8056
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prob - prevprob = 6.67004e-005
sumdiff - prevsumdiff = -6.1193e-007
Probability of good choice for population of 332=47.8122
prob - prevprob = 6.60976e-005
sumdiff - prevsumdiff = -6.02714e-007
Probability of good choice for population of 334=47.8187
prob - prevprob = 6.5504e-005
sumdiff - prevsumdiff = -5.93691e-007
Probability of good choice for population of 336=47.8252
prob - prevprob = 6.49191e-005
sumdiff - prevsumdiff = -5.84857e-007
Probability of good choice for population of 338=47.8316
prob - prevprob = 6.43429e-005
sumdiff - prevsumdiff = -5.76205e-007
Probability of good choice for population of 340=47.838
prob - prevprob = 6.37752e-005
sumdiff - prevsumdiff = -5.67731e-007
Probability of good choice for population of 342=47.8443
prob - prevprob = 6.32157e-005
sumdiff - prevsumdiff = -5.59431e-007
Probability of good choice for population of 344=47.8506
prob - prevprob = 6.26644e-005
sumdiff - prevsumdiff = -5.513e-007
Probability of good choice for population of 346=47.8568
prob - prevprob = 6.21211e-005
sumdiff - prevsumdiff = -5.43333e-007
Probability of good choice for population of 348=47.863
prob - prevprob = 6.15856e-005
sumdiff - prevsumdiff = -5.35527e-007
Probability of good choice for population of 350=47.8691
prob - prevprob = 6.10577e-005
sumdiff - prevsumdiff = -5.27876e-007
Probability of good choice for population of 352=47.8751
prob - prevprob = 6.05373e-005
sumdiff - prevsumdiff = -5.20378e-007
Probability of good choice for population of 354=47.8811
prob - prevprob = 6.00243e-005
sumdiff - prevsumdiff = -5.13028e-007
Probability of good choice for population of 356=47.8871
prob - prevprob = 5.95185e-005
sumdiff - prevsumdiff = -5.05823e-007
Probability of good choice for population of 358=47.893
prob - prevprob = 5.90197e-005
sumdiff - prevsumdiff = -4.98758e-007
Probability of good choice for population of 360=47.8988
prob - prevprob = 5.85279e-005
sumdiff - prevsumdiff = -4.91831e-007
Probability of good choice for population of 362=47.9047
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prob - prevprob = 5.80428e-005
sumdiff - prevsumdiff = -4.85038e-007
Probability of good choice for population of 364=47.9104
prob - prevprob = 5.75645e-005
sumdiff - prevsumdiff = -4.78375e-007
Probability of good choice for population of 366=47.9161
prob - prevprob = 5.70926e-005
sumdiff - prevsumdiff = -4.7184e-007
Probability of good choice for population of 368=47.9218
prob - prevprob = 5.66272e-005
sumdiff - prevsumdiff = -4.65429e-007
Probability of good choice for population of 370=47.9274
prob - prevprob = 5.61681e-005
sumdiff - prevsumdiff = -4.59139e-007
Probability of good choice for population of 372=47.933
prob - prevprob = 5.57151e-005
sumdiff - prevsumdiff = -4.52968e-007
Probability of good choice for population of 374=47.9385
prob - prevprob = 5.52682e-005
sumdiff - prevsumdiff = -4.46912e-007
Probability of good choice for population of 376=47.944
prob - prevprob = 5.48272e-005
sumdiff - prevsumdiff = -4.40969e-007
Probability of good choice for population of 378=47.9494
prob - prevprob = 5.43921e-005
sumdiff - prevsumdiff = -4.35137e-007
Probability of good choice for population of 380=47.9548
prob - prevprob = 5.39627e-005
sumdiff - prevsumdiff = -4.29411e-007
Probability of good choice for population of 382=47.9602
prob - prevprob = 5.35389e-005
sumdiff - prevsumdiff = -4.23791e-007
Probability of good choice for population of 384=47.9655
prob - prevprob = 5.31206e-005
sumdiff - prevsumdiff = -4.18272e-007
Probability of good choice for population of 386=47.9708
prob - prevprob = 5.27077e-005
sumdiff - prevsumdiff = -4.12854e-007
Probability of good choice for population of 388=47.976
prob - prevprob = 5.23002e-005
sumdiff - prevsumdiff = -4.07534e-007
Probability of good choice for population of 390=47.9812
prob - prevprob = 5.18979e-005
sumdiff - prevsumdiff = -4.02309e-007
Probability of good choice for population of 392=47.9863
prob - prevprob = 5.15007e-005
sumdiff - prevsumdiff = -3.97178e-007
Probability of good choice for population of 394=47.9914
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prob - prevprob = 5.11086e-005
sumdiff - prevsumdiff = -3.92137e-007
Probability of good choice for population of 396=47.9965
prob - prevprob = 5.07214e-005
sumdiff - prevsumdiff = -3.87186e-007
Probability of good choice for population of 398=48.0015
prob - prevprob = 5.03391e-005
sumdiff - prevsumdiff = -3.82322e-007
Probability of good choice for population of 400=48.0065
prob - prevprob = 4.99615e-005
sumdiff - prevsumdiff = -3.77543e-007
Probability of good choice for population of 402=48.0115
prob - prevprob = 4.95887e-005
sumdiff - prevsumdiff = -3.72847e-007
Probability of good choice for population of 404=48.0164
prob - prevprob = 4.92205e-005
sumdiff - prevsumdiff = -3.68233e-007
Probability of good choice for population of 406=48.0213
prob - prevprob = 4.88568e-005
sumdiff - prevsumdiff = -3.63698e-007
Probability of good choice for population of 408=48.0262
prob - prevprob = 4.84975e-005
sumdiff - prevsumdiff = -3.59241e-007
Probability of good choice for population of 410=48.031
prob - prevprob = 4.81427e-005
sumdiff - prevsumdiff = -3.5486e-007
Probability of good choice for population of 412=48.0357
prob - prevprob = 4.77921e-005
sumdiff - prevsumdiff = -3.50553e-007
Probability of good choice for population of 414=48.0405
prob - prevprob = 4.74458e-005
sumdiff - prevsumdiff = -3.4632e-007
Probability of good choice for population of 416=48.0452
prob - prevprob = 4.71036e-005
sumdiff - prevsumdiff = -3.42157e-007
Probability of good choice for population of 418=48.0499
prob - prevprob = 4.67656e-005
sumdiff - prevsumdiff = -3.38064e-007
Probability of good choice for population of 420=48.0545
prob - prevprob = 4.64315e-005
sumdiff - prevsumdiff = -3.3404e-007
Probability of good choice for population of 422=48.0591
prob - prevprob = 4.61014e-005
sumdiff - prevsumdiff = -3.30082e-007
Probability of good choice for population of 424=48.0637
prob - prevprob = 4.57752e-005
sumdiff - prevsumdiff = -3.26189e-007
Probability of good choice for population of 426=48.0683
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prob - prevprob = 4.54529e-005
sumdiff - prevsumdiff = -3.22361e-007
Probability of good choice for population of 428=48.0728
prob - prevprob = 4.51343e-005
sumdiff - prevsumdiff = -3.18595e-007
Probability of good choice for population of 430=48.0772
prob - prevprob = 4.48194e-005
sumdiff - prevsumdiff = -3.1489e-007
Probability of good choice for population of 432=48.0817
prob - prevprob = 4.45082e-005
sumdiff - prevsumdiff = -3.11246e-007
Probability of good choice for population of 434=48.0861
prob - prevprob = 4.42005e-005
sumdiff - prevsumdiff = -3.0766e-007
Probability of good choice for population of 436=48.0905
prob - prevprob = 4.38964e-005
sumdiff - prevsumdiff = -3.04132e-007
Probability of good choice for population of 438=48.0949
prob - prevprob = 4.35957e-005
sumdiff - prevsumdiff = -3.0066e-007
Probability of good choice for population of 440=48.0992
prob - prevprob = 4.32985e-005
sumdiff - prevsumdiff = -2.97243e-007
Probability of good choice for population of 442=48.1035
prob - prevprob = 4.30046e-005
sumdiff - prevsumdiff = -2.93881e-007
Probability of good choice for population of 444=48.1078
prob - prevprob = 4.2714e-005
sumdiff - prevsumdiff = -2.90571e-007
Probability of good choice for population of 446=48.112
prob - prevprob = 4.24267e-005
sumdiff - prevsumdiff = -2.87314e-007
Probability of good choice for population of 448=48.1162
prob - prevprob = 4.21426e-005
sumdiff - prevsumdiff = -2.84107e-007
Probability of good choice for population of 450=48.1204
prob - prevprob = 4.18616e-005
sumdiff - prevsumdiff = -2.80951e-007
Probability of good choice for population of 452=48.1246
prob - prevprob = 4.15838e-005
sumdiff - prevsumdiff = -2.77843e-007
Probability of good choice for population of 454=48.1287
prob - prevprob = 4.1309e-005
sumdiff - prevsumdiff = -2.74783e-007
Probability of good choice for population of 456=48.1328
prob - prevprob = 4.10372e-005
sumdiff - prevsumdiff = -2.7177e-007
Probability of good choice for population of 458=48.1369
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prob - prevprob = 4.07684e-005
sumdiff - prevsumdiff = -2.68803e-007
Probability of good choice for population of 460=48.1409
prob - prevprob = 4.05026e-005
sumdiff - prevsumdiff = -2.65881e-007
Probability of good choice for population of 462=48.145
prob - prevprob = 4.02396e-005
sumdiff - prevsumdiff = -2.63004e-007
Probability of good choice for population of 464=48.149
prob - prevprob = 3.99794e-005
sumdiff - prevsumdiff = -2.6017e-007
Probability of good choice for population of 466=48.1529
prob - prevprob = 3.9722e-005
sumdiff - prevsumdiff = -2.57378e-007
Probability of good choice for population of 468=48.1569
prob - prevprob = 3.94674e-005
sumdiff - prevsumdiff = -2.54628e-007
Probability of good choice for population of 470=48.1608
prob - prevprob = 3.92155e-005
sumdiff - prevsumdiff = -2.51919e-007
Probability of good choice for population of 472=48.1647
prob - prevprob = 3.89662e-005
sumdiff - prevsumdiff = -2.49251e-007
Probability of good choice for population of 474=48.1686
prob - prevprob = 3.87196e-005
sumdiff - prevsumdiff = -2.46622e-007
Probability of good choice for population of 476=48.1724
prob - prevprob = 3.84756e-005
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Probability of good choice for population of 478=48.1762
prob - prevprob = 3.82341e-005
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Probability of good choice for population of 480=48.18
prob - prevprob = 3.79951e-005
sumdiff - prevsumdiff = -2.38963e-007
Probability of good choice for population of 482=48.1838
prob - prevprob = 3.77586e-005
sumdiff - prevsumdiff = -2.36484e-007
Probability of good choice for population of 484=48.1876
prob - prevprob = 3.75246e-005
sumdiff - prevsumdiff = -2.34041e-007
Probability of good choice for population of 486=48.1913
prob - prevprob = 3.7293e-005
sumdiff - prevsumdiff = -2.31633e-007
Probability of good choice for population of 488=48.195
prob - prevprob = 3.70637e-005
sumdiff - prevsumdiff = -2.2926e-007
Probability of good choice for population of 490=48.1987
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prob - prevprob = 3.68368e-005
sumdiff - prevsumdiff = -2.26921e-007
Probability of good choice for population of 492=48.2023
prob - prevprob = 3.66122e-005
sumdiff - prevsumdiff = -2.24614e-007
Probability of good choice for population of 494=48.206
prob - prevprob = 3.63898e-005
sumdiff - prevsumdiff = -2.22341e-007
Probability of good choice for population of 496=48.2096
prob - prevprob = 3.61697e-005
sumdiff - prevsumdiff = -2.201e-007
Probability of good choice for population of 498=48.2132
prob - prevprob = 3.59518e-005
sumdiff - prevsumdiff = -2.1789e-007
Probability of good choice for population of 500=48.2168
prob - prevprob = 3.57361e-005
sumdiff - prevsumdiff = -2.15711e-007
Probability of good choice for population of 502=48.2203
prob - prevprob = 3.55226e-005
sumdiff - prevsumdiff = -2.13562e-007
Probability of good choice for population of 504=48.2239
prob - prevprob = 3.53111e-005
sumdiff - prevsumdiff = -2.11444e-007
Probability of good choice for population of 506=48.2274
prob - prevprob = 3.51018e-005
sumdiff - prevsumdiff = -2.09354e-007
Probability of good choice for population of 508=48.2309
prob - prevprob = 3.48945e-005
sumdiff - prevsumdiff = -2.07294e-007
Probability of good choice for population of 510=48.2343
prob - prevprob = 3.46892e-005
sumdiff - prevsumdiff = -2.05262e-007
Probability of good choice for population of 512=48.2378
prob - prevprob = 3.44859e-005
sumdiff - prevsumdiff = -2.03257e-007
Probability of good choice for population of 514=48.2412
prob - prevprob = 3.42847e-005
sumdiff - prevsumdiff = -2.0128e-007
Probability of good choice for population of 516=48.2446
prob - prevprob = 3.40853e-005
sumdiff - prevsumdiff = -1.99329e-007
Probability of good choice for population of 518=48.248
prob - prevprob = 3.38879e-005
sumdiff - prevsumdiff = -1.97405e-007
Probability of good choice for population of 520=48.2514
prob - prevprob = 3.36924e-005
sumdiff - prevsumdiff = -1.95507e-007
Probability of good choice for population of 522=48.2547
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prob - prevprob = 3.34988e-005
sumdiff - prevsumdiff = -1.93635e-007
Probability of good choice for population of 524=48.258
prob - prevprob = 3.3307e-005
sumdiff - prevsumdiff = -1.91787e-007
Probability of good choice for population of 526=48.2614
prob - prevprob = 3.3117e-005
sumdiff - prevsumdiff = -1.89964e-007
Probability of good choice for population of 528=48.2646
prob - prevprob = 3.29289e-005
sumdiff - prevsumdiff = -1.88165e-007
Probability of good choice for population of 530=48.2679
prob - prevprob = 3.27425e-005
sumdiff - prevsumdiff = -1.8639e-007
Probability of good choice for population of 532=48.2712
prob - prevprob = 3.25578e-005
sumdiff - prevsumdiff = -1.84638e-007
Probability of good choice for population of 534=48.2744
prob - prevprob = 3.23749e-005
sumdiff - prevsumdiff = -1.82909e-007
Probability of good choice for population of 536=48.2776
prob - prevprob = 3.21937e-005
sumdiff - prevsumdiff = -1.81203e-007
Probability of good choice for population of 538=48.2808
prob - prevprob = 3.20142e-005
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Probability of good choice for population of 540=48.284
prob - prevprob = 3.18364e-005
sumdiff - prevsumdiff = -1.77857e-007
Probability of good choice for population of 542=48.2872
prob - prevprob = 3.16601e-005
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Probability of good choice for population of 544=48.2903
prob - prevprob = 3.14855e-005
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Probability of good choice for population of 546=48.2935
prob - prevprob = 3.13125e-005
sumdiff - prevsumdiff = -1.72997e-007
Probability of good choice for population of 548=48.2966
prob - prevprob = 3.11411e-005
sumdiff - prevsumdiff = -1.71419e-007
Probability of good choice for population of 550=48.2997
prob - prevprob = 3.09713e-005
sumdiff - prevsumdiff = -1.69861e-007
Probability of good choice for population of 552=48.3028
prob - prevprob = 3.08029e-005
sumdiff - prevsumdiff = -1.68322e-007
Probability of good choice for population of 554=48.3058
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prob - prevprob = 3.06361e-005
sumdiff - prevsumdiff = -1.66803e-007
Probability of good choice for population of 556=48.3089
prob - prevprob = 3.04708e-005
sumdiff - prevsumdiff = -1.65303e-007
Probability of good choice for population of 558=48.3119
prob - prevprob = 3.0307e-005
sumdiff - prevsumdiff = -1.63822e-007
Probability of good choice for population of 560=48.3149
prob - prevprob = 3.01447e-005
sumdiff - prevsumdiff = -1.62359e-007
Probability of good choice for population of 562=48.3179
prob - prevprob = 2.99837e-005
sumdiff - prevsumdiff = -1.60915e-007
Probability of good choice for population of 564=48.3209
prob - prevprob = 2.98243e-005
sumdiff - prevsumdiff = -1.59488e-007
Probability of good choice for population of 566=48.3239
prob - prevprob = 2.96662e-005
sumdiff - prevsumdiff = -1.58079e-007
Probability of good choice for population of 568=48.3268
prob - prevprob = 2.95095e-005
sumdiff - prevsumdiff = -1.56688e-007
Probability of good choice for population of 570=48.3297
prob - prevprob = 2.93542e-005
sumdiff - prevsumdiff = -1.55313e-007
Probability of good choice for population of 572=48.3327
prob - prevprob = 2.92002e-005
sumdiff - prevsumdiff = -1.53955e-007
Probability of good choice for population of 574=48.3356
prob - prevprob = 2.90476e-005
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Probability of good choice for population of 576=48.3385
prob - prevprob = 2.88963e-005
sumdiff - prevsumdiff = -1.5129e-007
Probability of good choice for population of 578=48.3413
prob - prevprob = 2.87463e-005
sumdiff - prevsumdiff = -1.49981e-007
Probability of good choice for population of 580=48.3442
prob - prevprob = 2.85976e-005
sumdiff - prevsumdiff = -1.48688e-007
Probability of good choice for population of 582=48.347
prob - prevprob = 2.84502e-005
sumdiff - prevsumdiff = -1.47411e-007
Probability of good choice for population of 584=48.3499
prob - prevprob = 2.83041e-005
sumdiff - prevsumdiff = -1.46148e-007
Probability of good choice for population of 586=48.3527
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prob - prevprob = 2.81592e-005
sumdiff - prevsumdiff = -1.44901e-007
Probability of good choice for population of 588=48.3555
prob - prevprob = 2.80155e-005
sumdiff - prevsumdiff = -1.43669e-007
Probability of good choice for population of 590=48.3583
prob - prevprob = 2.78731e-005
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Probability of good choice for population of 592=48.361
prob - prevprob = 2.77318e-005
sumdiff - prevsumdiff = -1.41249e-007
Probability of good choice for population of 594=48.3638
prob - prevprob = 2.75918e-005
sumdiff - prevsumdiff = -1.4006e-007
Probability of good choice for population of 596=48.3666
prob - prevprob = 2.74529e-005
sumdiff - prevsumdiff = -1.38885e-007
Probability of good choice for population of 598=48.3693
prob - prevprob = 2.73151e-005
sumdiff - prevsumdiff = -1.37723e-007
Probability of good choice for population of 600=48.372
prob - prevprob = 2.71786e-005
sumdiff - prevsumdiff = -1.36576e-007
Probability of good choice for population of 602=48.3747
prob - prevprob = 2.70431e-005
sumdiff - prevsumdiff = -1.35441e-007
Probability of good choice for population of 604=48.3774
prob - prevprob = 2.69088e-005
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Probability of good choice for population of 606=48.3801
prob - prevprob = 2.67756e-005
sumdiff - prevsumdiff = -1.33212e-007
Probability of good choice for population of 608=48.3827
prob - prevprob = 2.66435e-005
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Probability of good choice for population of 610=48.3854
prob - prevprob = 2.65125e-005
sumdiff - prevsumdiff = -1.31034e-007
Probability of good choice for population of 612=48.388
prob - prevprob = 2.63825e-005
sumdiff - prevsumdiff = -1.29963e-007
Probability of good choice for population of 614=48.3907
prob - prevprob = 2.62536e-005
sumdiff - prevsumdiff = -1.28905e-007
Probability of good choice for population of 616=48.3933
prob - prevprob = 2.61257e-005
sumdiff - prevsumdiff = -1.27858e-007
Probability of good choice for population of 618=48.3959
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prob - prevprob = 2.59989e-005
sumdiff - prevsumdiff = -1.26824e-007
Probability of good choice for population of 620=48.3985
prob - prevprob = 2.58731e-005
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Probability of good choice for population of 622=48.401
prob - prevprob = 2.57483e-005
sumdiff - prevsumdiff = -1.2479e-007
Probability of good choice for population of 624=48.4036
prob - prevprob = 2.56245e-005
sumdiff - prevsumdiff = -1.2379e-007
Probability of good choice for population of 626=48.4061
prob - prevprob = 2.55017e-005
sumdiff - prevsumdiff = -1.22801e-007
Probability of good choice for population of 628=48.4087
prob - prevprob = 2.53799e-005
sumdiff - prevsumdiff = -1.21823e-007
Probability of good choice for population of 630=48.4112
prob - prevprob = 2.5259e-005
sumdiff - prevsumdiff = -1.20857e-007
Probability of good choice for population of 632=48.4137
prob - prevprob = 2.51391e-005
sumdiff - prevsumdiff = -1.199e-007
Probability of good choice for population of 634=48.4162
prob - prevprob = 2.50202e-005
sumdiff - prevsumdiff = -1.18955e-007
Probability of good choice for population of 636=48.4187
prob - prevprob = 2.49022e-005
sumdiff - prevsumdiff = -1.1802e-007
Probability of good choice for population of 638=48.4212
prob - prevprob = 2.47851e-005
sumdiff - prevsumdiff = -1.17095e-007
Probability of good choice for population of 640=48.4237
prob - prevprob = 2.46689e-005
sumdiff - prevsumdiff = -1.1618e-007
Probability of good choice for population of 642=48.4261
prob - prevprob = 2.45536e-005
sumdiff - prevsumdiff = -1.15275e-007
Probability of good choice for population of 644=48.4286
prob - prevprob = 2.44392e-005
sumdiff - prevsumdiff = -1.1438e-007
Probability of good choice for population of 646=48.431
prob - prevprob = 2.43257e-005
sumdiff - prevsumdiff = -1.13495e-007
Probability of good choice for population of 648=48.4334
prob - prevprob = 2.42131e-005
sumdiff - prevsumdiff = -1.12619e-007
Probability of good choice for population of 650=48.4358
```

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prob - prevprob = 2.41014e-005
sumdiff - prevsumdiff = -1.11753e-007
Probability of good choice for population of 652=48.4382
prob - prevprob = 2.39905e-005
sumdiff - prevsumdiff = -1.10896e-007
Probability of good choice for population of 654=48.4406
prob - prevprob = 2.38804e-005
sumdiff - prevsumdiff = -1.10048e-007
Probability of good choice for population of 656=48.443
prob - prevprob = 2.37712e-005
sumdiff - prevsumdiff = -1.09209e-007
Probability of good choice for population of 658=48.4454
prob - prevprob = 2.36628e-005
sumdiff - prevsumdiff = -1.08379e-007
Probability of good choice for population of 660=48.4477
prob - prevprob = 2.35553e-005
sumdiff - prevsumdiff = -1.07558e-007
Probability of good choice for population of 662=48.4501
prob - prevprob = 2.34485e-005
sumdiff - prevsumdiff = -1.06746e-007
Probability of good choice for population of 664=48.4524
prob - prevprob = 2.33426e-005
sumdiff - prevsumdiff = -1.05942e-007
Probability of good choice for population of 666=48.4547
prob - prevprob = 2.32374e-005
sumdiff - prevsumdiff = -1.05147e-007
Probability of good choice for population of 668=48.457
prob - prevprob = 2.31331e-005
sumdiff - prevsumdiff = -1.0436e-007
Probability of good choice for population of 670=48.4593
prob - prevprob = 2.30295e-005
sumdiff - prevsumdiff = -1.03581e-007
Probability of good choice for population of 672=48.4616
prob - prevprob = 2.29267e-005
sumdiff - prevsumdiff = -1.0281e-007
Probability of good choice for population of 674=48.4639
prob - prevprob = 2.28246e-005
sumdiff - prevsumdiff = -1.02048e-007
Probability of good choice for population of 676=48.4662
prob - prevprob = 2.27233e-005
sumdiff - prevsumdiff = -1.01293e-007
Probability of good choice for population of 678=48.4684
prob - prevprob = 2.26228e-005
sumdiff - prevsumdiff = -1.00546e-007
Probability of good choice for population of 680=48.4707
prob - prevprob = 2.2523e-005
sumdiff - prevsumdiff = -9.98065e-008
Probability of good choice for population of 682=48.4729
```

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prob - prevprob = 2.24239e-005
sumdiff - prevsumdiff = -9.90748e-008
Probability of good choice for population of 684=48.4752
prob - prevprob = 2.23256e-005
sumdiff - prevsumdiff = -9.83505e-008
Probability of good choice for population of 686=48.4774
prob - prevprob = 2.22279e-005
sumdiff - prevsumdiff = -9.76337e-008
Probability of good choice for population of 688=48.4796
prob - prevprob = 2.2131e-005
sumdiff - prevsumdiff = -9.69241e-008
Probability of good choice for population of 690=48.4818
prob - prevprob = 2.20348e-005
sumdiff - prevsumdiff = -9.62218e-008
Probability of good choice for population of 692=48.484
prob - prevprob = 2.19393e-005
sumdiff - prevsumdiff = -9.55266e-008
Probability of good choice for population of 694=48.4862
prob - prevprob = 2.18444e-005
sumdiff - prevsumdiff = -9.48383e-008
Probability of good choice for population of 696=48.4884
prob - prevprob = 2.17503e-005
sumdiff - prevsumdiff = -9.4157e-008
Probability of good choice for population of 698=48.4905
prob - prevprob = 2.16568e-005
sumdiff - prevsumdiff = -9.34825e-008
Probability of good choice for population of 700=48.4927
prob - prevprob = 2.1564e-005
sumdiff - prevsumdiff = -9.28148e-008
Probability of good choice for population of 702=48.4948
prob - prevprob = 2.14718e-005
sumdiff - prevsumdiff = -9.21537e-008
Probability of good choice for population of 704=48.497
prob - prevprob = 2.13803e-005
sumdiff - prevsumdiff = -9.14992e-008
Probability of good choice for population of 706=48.4991
prob - prevprob = 2.12895e-005
sumdiff - prevsumdiff = -9.08512e-008
Probability of good choice for population of 708=48.5012
prob - prevprob = 2.11993e-005
sumdiff - prevsumdiff = -9.02096e-008
Probability of good choice for population of 710=48.5033
prob - prevprob = 2.11097e-005
sumdiff - prevsumdiff = -8.95743e-008
Probability of good choice for population of 712=48.5054
prob - prevprob = 2.10207e-005
sumdiff - prevsumdiff = -8.89453e-008
Probability of good choice for population of 714=48.5075
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prob - prevprob = 2.09324e-005
sumdiff - prevsumdiff = -8.83224e-008
Probability of good choice for population of 716=48.5096
prob - prevprob = 2.08447e-005
sumdiff - prevsumdiff = -8.77057e-008
Probability of good choice for population of 718=48.5117
prob - prevprob = 2.07576e-005
sumdiff - prevsumdiff = -8.70949e-008
Probability of good choice for population of 720=48.5137
prob - prevprob = 2.06711e-005
sumdiff - prevsumdiff = -8.64901e-008
Probability of good choice for population of 722=48.5158
prob - prevprob = 2.05852e-005
sumdiff - prevsumdiff = -8.58911e-008
Probability of good choice for population of 724=48.5179
prob - prevprob = 2.04999e-005
sumdiff - prevsumdiff = -8.52979e-008
Probability of good choice for population of 726=48.5199
prob - prevprob = 2.04152e-005
sumdiff - prevsumdiff = -8.47105e-008
Probability of good choice for population of 728=48.5219
prob - prevprob = 2.03311e-005
sumdiff - prevsumdiff = -8.41287e-008
Probability of good choice for population of 730=48.524
prob - prevprob = 2.02475e-005
sumdiff - prevsumdiff = -8.35525e-008
Probability of good choice for population of 732=48.526
prob - prevprob = 2.01646e-005
sumdiff - prevsumdiff = -8.29817e-008
Probability of good choice for population of 734=48.528
prob - prevprob = 2.00821e-005
sumdiff - prevsumdiff = -8.24165e-008
Probability of good choice for population of 736=48.53
prob - prevprob = 2.00003e-005
sumdiff - prevsumdiff = -8.18566e-008
Probability of good choice for population of 738=48.532
prob - prevprob = 1.9919e-005
sumdiff - prevsumdiff = -8.1302e-008
Probability of good choice for population of 740=48.534
prob - prevprob = 1.98382e-005
sumdiff - prevsumdiff = -8.07527e-008
Probability of good choice for population of 742=48.5359
prob - prevprob = 1.9758e-005
sumdiff - prevsumdiff = -8.02085e-008
Probability of good choice for population of 744=48.5379
prob - prevprob = 1.96784e-005
sumdiff - prevsumdiff = -7.96695e-008
Probability of good choice for population of 746=48.5399
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prob - prevprob = 1.95992e-005
sumdiff - prevsumdiff = -7.91355e-008
Probability of good choice for population of 748=48.5418
prob - prevprob = 1.95206e-005
sumdiff - prevsumdiff = -7.86065e-008
Probability of good choice for population of 750=48.5438
prob - prevprob = 1.94425e-005
sumdiff - prevsumdiff = -7.80825e-008
Probability of good choice for population of 752=48.5457
prob - prevprob = 1.9365e-005
sumdiff - prevsumdiff = -7.75633e-008
Probability of good choice for population of 754=48.5476
prob - prevprob = 1.92879e-005
sumdiff - prevsumdiff = -7.7049e-008
Probability of good choice for population of 756=48.5495
prob - prevprob = 1.92114e-005
sumdiff - prevsumdiff = -7.65394e-008
Probability of good choice for population of 758=48.5515
prob - prevprob = 1.91353e-005
sumdiff - prevsumdiff = -7.60345e-008
Probability of good choice for population of 760=48.5534
prob - prevprob = 1.90598e-005
sumdiff - prevsumdiff = -7.55343e-008
Probability of good choice for population of 762=48.5553
prob - prevprob = 1.89848e-005
sumdiff - prevsumdiff = -7.50386e-008
Probability of good choice for population of 764=48.5571
prob - prevprob = 1.89102e-005
sumdiff - prevsumdiff = -7.45475e-008
Probability of good choice for population of 766=48.559
prob - prevprob = 1.88362e-005
sumdiff - prevsumdiff = -7.40609e-008
Probability of good choice for population of 768=48.5609
prob - prevprob = 1.87626e-005
sumdiff - prevsumdiff = -7.35788e-008
Probability of good choice for population of 770=48.5628
prob - prevprob = 1.86895e-005
sumdiff - prevsumdiff = -7.3101e-008
Probability of good choice for population of 772=48.5646
prob - prevprob = 1.86169e-005
sumdiff - prevsumdiff = -7.26275e-008
Probability of good choice for population of 774=48.5665
prob - prevprob = 1.85447e-005
sumdiff - prevsumdiff = -7.21584e-008
Probability of good choice for population of 776=48.5683
prob - prevprob = 1.8473e-005
sumdiff - prevsumdiff = -7.16934e-008
Probability of good choice for population of 778=48.5702
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prob - prevprob = 1.84018e-005
sumdiff - prevsumdiff = -7.12327e-008
Probability of good choice for population of 780=48.572
prob - prevprob = 1.8331e-005
sumdiff - prevsumdiff = -7.07761e-008
Probability of good choice for population of 782=48.5738
prob - prevprob = 1.82607e-005
sumdiff - prevsumdiff = -7.03235e-008
Probability of good choice for population of 784=48.5757
prob - prevprob = 1.81908e-005
sumdiff - prevsumdiff = -6.9875e-008
Probability of good choice for population of 786=48.5775
prob - prevprob = 1.81214e-005
sumdiff - prevsumdiff = -6.94305e-008
Probability of good choice for population of 788=48.5793
prob - prevprob = 1.80524e-005
sumdiff - prevsumdiff = -6.899e-008
Probability of good choice for population of 790=48.5811
prob - prevprob = 1.79838e-005
sumdiff - prevsumdiff = -6.85533e-008
Probability of good choice for population of 792=48.5829
prob - prevprob = 1.79157e-005
sumdiff - prevsumdiff = -6.81206e-008
Probability of good choice for population of 794=48.5847
prob - prevprob = 1.7848e-005
sumdiff - prevsumdiff = -6.76916e-008
Probability of good choice for population of 796=48.5864
prob - prevprob = 1.77807e-005
sumdiff - prevsumdiff = -6.72664e-008
Probability of good choice for population of 798=48.5882
prob - prevprob = 1.77139e-005
sumdiff - prevsumdiff = -6.68449e-008
Probability of good choice for population of 800=48.59
prob - prevprob = 1.76475e-005
sumdiff - prevsumdiff = -6.64271e-008
Probability of good choice for population of 802=48.5917
prob - prevprob = 1.75815e-005
sumdiff - prevsumdiff = -6.6013e-008
Probability of good choice for population of 804=48.5935
prob - prevprob = 1.75159e-005
sumdiff - prevsumdiff = -6.56025e-008
Probability of good choice for population of 806=48.5952
prob - prevprob = 1.74507e-005
sumdiff - prevsumdiff = -6.51955e-008
Probability of good choice for population of 808=48.597
prob - prevprob = 1.73859e-005
sumdiff - prevsumdiff = -6.47921e-008
Probability of good choice for population of 810=48.5987
```

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prob - prevprob = 1.73215e-005
sumdiff - prevsumdiff = -6.43921e-008
Probability of good choice for population of 812=48.6004
prob - prevprob = 1.72575e-005
sumdiff - prevsumdiff = -6.39956e-008
Probability of good choice for population of 814=48.6021
prob - prevprob = 1.71939e-005
sumdiff - prevsumdiff = -6.36025e-008
Probability of good choice for population of 816=48.6039
prob - prevprob = 1.71307e-005
sumdiff - prevsumdiff = -6.32128e-008
Probability of good choice for population of 818=48.6056
prob - prevprob = 1.70678e-005
sumdiff - prevsumdiff = -6.28264e-008
Probability of good choice for population of 820=48.6073
prob - prevprob = 1.70054e-005
sumdiff - prevsumdiff = -6.24433e-008
Probability of good choice for population of 822=48.609
prob - prevprob = 1.69433e-005
sumdiff - prevsumdiff = -6.20635e-008
Probability of good choice for population of 824=48.6106
prob - prevprob = 1.68816e-005
sumdiff - prevsumdiff = -6.16869e-008
Probability of good choice for population of 826=48.6123
prob - prevprob = 1.68203e-005
sumdiff - prevsumdiff = -6.13135e-008
Probability of good choice for population of 828=48.614
prob - prevprob = 1.67594e-005
sumdiff - prevsumdiff = -6.09432e-008
Probability of good choice for population of 830=48.6157
prob - prevprob = 1.66988e-005
sumdiff - prevsumdiff = -6.05761e-008
Probability of good choice for population of 832=48.6173
prob - prevprob = 1.66386e-005
sumdiff - prevsumdiff = -6.02121e-008
Probability of good choice for population of 834=48.619
prob - prevprob = 1.65788e-005
sumdiff - prevsumdiff = -5.98511e-008
Probability of good choice for population of 836=48.6206
prob - prevprob = 1.65193e-005
sumdiff - prevsumdiff = -5.94931e-008
Probability of good choice for population of 838=48.6223
prob - prevprob = 1.64601e-005
sumdiff - prevsumdiff = -5.91382e-008
Probability of good choice for population of 840=48.6239
prob - prevprob = 1.64013e-005
sumdiff - prevsumdiff = -5.87861e-008
Probability of good choice for population of 842=48.6256
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prob - prevprob = 1.63429e-005
sumdiff - prevsumdiff = -5.84371e-008
Probability of good choice for population of 844=48.6272
prob - prevprob = 1.62848e-005
sumdiff - prevsumdiff = -5.80909e-008
Probability of good choice for population of 846=48.6288
prob - prevprob = 1.62271e-005
sumdiff - prevsumdiff = -5.77475e-008
Probability of good choice for population of 848=48.6304
prob - prevprob = 1.61697e-005
sumdiff - prevsumdiff = -5.74071e-008
Probability of good choice for population of 850=48.632
prob - prevprob = 1.61126e-005
sumdiff - prevsumdiff = -5.70694e-008
Probability of good choice for population of 852=48.6336
prob - prevprob = 1.60558e-005
sumdiff - prevsumdiff = -5.67344e-008
Probability of good choice for population of 854=48.6352
prob - prevprob = 1.59994e-005
sumdiff - prevsumdiff = -5.64023e-008
Probability of good choice for population of 856=48.6368
prob - prevprob = 1.59434e-005
sumdiff - prevsumdiff = -5.60728e-008
Probability of good choice for population of 858=48.6384
prob - prevprob = 1.58876e-005
sumdiff - prevsumdiff = -5.57461e-008
Probability of good choice for population of 860=48.64
prob - prevprob = 1.58322e-005
sumdiff - prevsumdiff = -5.5422e-008
Probability of good choice for population of 862=48.6416
prob - prevprob = 1.57771e-005
sumdiff - prevsumdiff = -5.51005e-008
Probability of good choice for population of 864=48.6432
prob - prevprob = 1.57223e-005
sumdiff - prevsumdiff = -5.47816e-008
Probability of good choice for population of 866=48.6447
prob - prevprob = 1.56679e-005
sumdiff - prevsumdiff = -5.44653e-008
Probability of good choice for population of 868=48.6463
prob - prevprob = 1.56137e-005
sumdiff - prevsumdiff = -5.41516e-008
Probability of good choice for population of 870=48.6478
prob - prevprob = 1.55599e-005
sumdiff - prevsumdiff = -5.38404e-008
Probability of good choice for population of 872=48.6494
prob - prevprob = 1.55063e-005
sumdiff - prevsumdiff = -5.35317e-008
Probability of good choice for population of 874=48.6509
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prob - prevprob = 1.54531e-005
sumdiff - prevsumdiff = -5.32254e-008
Probability of good choice for population of 876=48.6525
prob - prevprob = 1.54002e-005
sumdiff - prevsumdiff = -5.29216e-008
Probability of good choice for population of 878=48.654
prob - prevprob = 1.53476e-005
sumdiff - prevsumdiff = -5.26202e-008
Probability of good choice for population of 880=48.6555
prob - prevprob = 1.52952e-005
sumdiff - prevsumdiff = -5.23213e-008
Probability of good choice for population of 882=48.6571
prob - prevprob = 1.52432e-005
sumdiff - prevsumdiff = -5.20246e-008
Probability of good choice for population of 884=48.6586
prob - prevprob = 1.51915e-005
sumdiff - prevsumdiff = -5.17304e-008
Probability of good choice for population of 886=48.6601
prob - prevprob = 1.51401e-005
sumdiff - prevsumdiff = -5.14385e-008
Probability of good choice for population of 888=48.6616
prob - prevprob = 1.50889e-005
sumdiff - prevsumdiff = -5.11488e-008
Probability of good choice for population of 890=48.6631
prob - prevprob = 1.5038e-005
sumdiff - prevsumdiff = -5.08615e-008
Probability of good choice for population of 892=48.6646
prob - prevprob = 1.49875e-005
sumdiff - prevsumdiff = -5.05764e-008
Probability of good choice for population of 894=48.6661
prob - prevprob = 1.49372e-005
sumdiff - prevsumdiff = -5.02935e-008
Probability of good choice for population of 896=48.6676
prob - prevprob = 1.48872e-005
sumdiff - prevsumdiff = -5.00129e-008
Probability of good choice for population of 898=48.6691
prob - prevprob = 1.48374e-005
sumdiff - prevsumdiff = -4.97344e-008
Probability of good choice for population of 900=48.6706
prob - prevprob = 1.4788e-005
sumdiff - prevsumdiff = -4.94581e-008
Probability of good choice for population of 902=48.672
prob - prevprob = 1.47388e-005
sumdiff - prevsumdiff = -4.91839e-008
Probability of good choice for population of 904=48.6735
prob - prevprob = 1.46899e-005
sumdiff - prevsumdiff = -4.89119e-008
Probability of good choice for population of 906=48.675
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prob - prevprob = 1.46412e-005
sumdiff - prevsumdiff = -4.8642e-008
Probability of good choice for population of 908=48.6764
prob - prevprob = 1.45929e-005
sumdiff - prevsumdiff = -4.83741e-008
Probability of good choice for population of 910=48.6779
prob - prevprob = 1.45447e-005
sumdiff - prevsumdiff = -4.81083e-008
Probability of good choice for population of 912=48.6793
prob - prevprob = 1.44969e-005
sumdiff - prevsumdiff = -4.78446e-008
Probability of good choice for population of 914=48.6808
prob - prevprob = 1.44493e-005
sumdiff - prevsumdiff = -4.75828e-008
Probability of good choice for population of 916=48.6822
prob - prevprob = 1.4402e-005
sumdiff - prevsumdiff = -4.73231e-008
Probability of good choice for population of 918=48.6837
prob - prevprob = 1.43549e-005
sumdiff - prevsumdiff = -4.70653e-008
Probability of good choice for population of 920=48.6851
prob - prevprob = 1.43081e-005
sumdiff - prevsumdiff = -4.68096e-008
Probability of good choice for population of 922=48.6865
prob - prevprob = 1.42616e-005
sumdiff - prevsumdiff = -4.65557e-008
Probability of good choice for population of 924=48.6879
prob - prevprob = 1.42153e-005
sumdiff - prevsumdiff = -4.63038e-008
Probability of good choice for population of 926=48.6893
prob - prevprob = 1.41692e-005
sumdiff - prevsumdiff = -4.60538e-008
Probability of good choice for population of 928=48.6908
prob - prevprob = 1.41234e-005
sumdiff - prevsumdiff = -4.58056e-008
Probability of good choice for population of 930=48.6922
prob - prevprob = 1.40778e-005
sumdiff - prevsumdiff = -4.55594e-008
Probability of good choice for population of 932=48.6936
prob - prevprob = 1.40325e-005
sumdiff - prevsumdiff = -4.53149e-008
Probability of good choice for population of 934=48.695
prob - prevprob = 1.39875e-005
sumdiff - prevsumdiff = -4.50724e-008
Probability of good choice for population of 936=48.6964
prob - prevprob = 1.39426e-005
sumdiff - prevsumdiff = -4.48316e-008
Probability of good choice for population of 938=48.6978
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```
prob - prevprob = 1.3898e-005
sumdiff - prevsumdiff = -4.45926e-008
Probability of good choice for population of 940=48.6991
prob - prevprob = 1.38537e-005
sumdiff - prevsumdiff = -4.43554e-008
Probability of good choice for population of 942=48.7005
prob - prevprob = 1.38096e-005
sumdiff - prevsumdiff = -4.412e-008
Probability of good choice for population of 944=48.7019
prob - prevprob = 1.37657e-005
sumdiff - prevsumdiff = -4.38863e-008
Probability of good choice for population of 946=48.7033
prob - prevprob = 1.3722e-005
sumdiff - prevsumdiff = -4.36543e-008
Probability of good choice for population of 948=48.7046
prob - prevprob = 1.36786e-005
sumdiff - prevsumdiff = -4.34241e-008
Probability of good choice for population of 950=48.706
prob - prevprob = 1.36354e-005
sumdiff - prevsumdiff = -4.31956e-008
Probability of good choice for population of 952=48.7074
prob - prevprob = 1.35924e-005
sumdiff - prevsumdiff = -4.29687e-008
Probability of good choice for population of 954=48.7087
prob - prevprob = 1.35497e-005
sumdiff - prevsumdiff = -4.27435e-008
Probability of good choice for population of 956=48.7101
prob - prevprob = 1.35072e-005
sumdiff - prevsumdiff = -4.25199e-008
Probability of good choice for population of 958=48.7114
prob - prevprob = 1.34649e-005
sumdiff - prevsumdiff = -4.2298e-008
Probability of good choice for population of 960=48.7128
prob - prevprob = 1.34228e-005
sumdiff - prevsumdiff = -4.20777e-008
Probability of good choice for population of 962=48.7141
prob - prevprob = 1.33809e-005
sumdiff - prevsumdiff = -4.1859e-008
Probability of good choice for population of 964=48.7154
prob - prevprob = 1.33393e-005
sumdiff - prevsumdiff = -4.16419e-008
Probability of good choice for population of 966=48.7168
prob - prevprob = 1.32979e-005
sumdiff - prevsumdiff = -4.14264e-008
Probability of good choice for population of 968=48.7181
prob - prevprob = 1.32566e-005
sumdiff - prevsumdiff = -4.12124e-008
Probability of good choice for population of 970=48.7194
```

```
prob - prevprob = 1.32156e-005
sumdiff - prevsumdiff = -4.09999e-008
Probability of good choice for population of 972=48.7207
prob - prevprob = 1.31749e-005
sumdiff - prevsumdiff = -4.0789e-008
Probability of good choice for population of 974=48.722
prob - prevprob = 1.31343e-005
sumdiff - prevsumdiff = -4.05797e-008
Probability of good choice for population of 976=48.7233
prob - prevprob = 1.30939e-005
sumdiff - prevsumdiff = -4.03718e-008
Probability of good choice for population of 978=48.7246
prob - prevprob = 1.30537e-005
sumdiff - prevsumdiff = -4.01654e-008
Probability of good choice for population of 980=48.726
prob - prevprob = 1.30138e-005
sumdiff - prevsumdiff = -3.99604e-008
Probability of good choice for population of 982=48.7272
prob - prevprob = 1.2974e-005
sumdiff - prevsumdiff = -3.9757e-008
Probability of good choice for population of 984=48.7285
prob - prevprob = 1.29345e-005
sumdiff - prevsumdiff = -3.9555e-008
Probability of good choice for population of 986=48.7298
prob - prevprob = 1.28951e-005
sumdiff - prevsumdiff = -3.93544e-008
Probability of good choice for population of 988=48.7311
prob - prevprob = 1.2856e-005
sumdiff - prevsumdiff = -3.91552e-008
Probability of good choice for population of 990=48.7324
prob - prevprob = 1.2817e-005
sumdiff - prevsumdiff = -3.89575e-008
Probability of good choice for population of 992=48.7337
prob - prevprob = 1.27782e-005
sumdiff - prevsumdiff = -3.87611e-008
Probability of good choice for population of 994=48.735
prob - prevprob = 1.27397e-005
sumdiff - prevsumdiff = -3.85661e-008
Probability of good choice for population of 996=48.7362
prob - prevprob = 1.27013e-005
sumdiff - prevsumdiff = -3.83725e-008
Probability of good choice for population of 998=48.7375
prob - prevprob = 1.26631e-005
sumdiff - prevsumdiff = -3.81803e-008
Probability of good choice for population of 1000=48.7387
prob - prevprob = 1.26251e-005
sumdiff - prevsumdiff = -3.79894e-008
Probability of good choice for population of 1002=48.74
```

```
prob - prevprob = 1.25873e-005
sumdiff - prevsumdiff = -3.77998e-008
Probability of good choice for population of 1004=48.7413
prob - prevprob = 1.25497e-005
sumdiff - prevsumdiff = -3.76116e-008
Probability of good choice for population of 1006=48.7425
prob - prevprob = 1.25123e-005
sumdiff - prevsumdiff = -3.74246e-008
Probability of good choice for population of 1008=48.7438
prob - prevprob = 1.24751e-005
sumdiff - prevsumdiff = -3.7239e-008
Probability of good choice for population of 1010=48.745
prob - prevprob = 1.2438e-005
sumdiff - prevsumdiff = -3.70546e-008
Probability of good choice for population of 1012=48.7462
prob - prevprob = 1.24011e-005
sumdiff - prevsumdiff = -3.68716e-008
Probability of good choice for population of 1014=48.7475
prob - prevprob = 1.23644e-005
sumdiff - prevsumdiff = -3.66897e-008
Probability of good choice for population of 1016=48.7487
prob - prevprob = 1.23279e-005
sumdiff - prevsumdiff = -3.65092e-008
Probability of good choice for population of 1018=48.7499
prob - prevprob = 1.22916e-005
sumdiff - prevsumdiff = -3.63299e-008
Probability of good choice for population of 1020=48.7512
prob - prevprob = 1.22555e-005
sumdiff - prevsumdiff = -3.61518e-008
Probability of good choice for population of 1022=48.7524
prob - prevprob = 1.22195e-005
sumdiff - prevsumdiff = -3.59749e-008
Probability of good choice for population of 1024=48.7536
prob - prevprob = 1.21837e-005
sumdiff - prevsumdiff = -3.57993e-008
Probability of good choice for population of 1026=48.7548
prob - prevprob = 1.21481e-005
sumdiff - prevsumdiff = -3.56248e-008
Probability of good choice for population of 1028=48.756
prob - prevprob = 1.21126e-005
sumdiff - prevsumdiff = -3.54515e-008
Probability of good choice for population of 1030=48.7572
prob - prevprob = 1.20773e-005
sumdiff - prevsumdiff = -3.52794e-008
Probability of good choice for population of 1032=48.7584
prob - prevprob = 1.20422e-005
sumdiff - prevsumdiff = -3.51085e-008
Probability of good choice for population of 1034=48.7596
```

```
prob - prevprob = 1.20073e-005
sumdiff - prevsumdiff = -3.49387e-008
Probability of good choice for population of 1036=48.7608
prob - prevprob = 1.19725e-005
sumdiff - prevsumdiff = -3.47701e-008
Probability of good choice for population of 1038=48.762
prob - prevprob = 1.19379e-005
sumdiff - prevsumdiff = -3.46026e-008
Probability of good choice for population of 1040=48.7632
prob - prevprob = 1.19035e-005
sumdiff - prevsumdiff = -3.44363e-008
Probability of good choice for population of 1042=48.7644
prob - prevprob = 1.18692e-005
sumdiff - prevsumdiff = -3.4271e-008
Probability of good choice for population of 1044=48.7656
prob - prevprob = 1.18351e-005
sumdiff - prevsumdiff = -3.41069e-008
Probability of good choice for population of 1046=48.7668
prob - prevprob = 1.18011e-005
sumdiff - prevsumdiff = -3.39438e-008
Probability of good choice for population of 1048=48.768
prob - prevprob = 1.17674e-005
sumdiff - prevsumdiff = -3.37819e-008
Probability of good choice for population of 1050=48.7691
prob - prevprob = 1.17337e-005
sumdiff - prevsumdiff = -3.3621e-008
Probability of good choice for population of 1052=48.7703
prob - prevprob = 1.17003e-005
sumdiff - prevsumdiff = -3.34612e-008
Probability of good choice for population of 1054=48.7715
prob - prevprob = 1.1667e-005
sumdiff - prevsumdiff = -3.33025e-008
Probability of good choice for population of 1056=48.7726
prob - prevprob = 1.16338e-005
sumdiff - prevsumdiff = -3.31448e-008
Probability of good choice for population of 1058=48.7738
prob - prevprob = 1.16008e-005
sumdiff - prevsumdiff = -3.29882e-008
Probability of good choice for population of 1060=48.7749
prob - prevprob = 1.1568e-005
sumdiff - prevsumdiff = -3.28326e-008
Probability of good choice for population of 1062=48.7761
prob - prevprob = 1.15353e-005
sumdiff - prevsumdiff = -3.2678e-008
Probability of good choice for population of 1064=48.7773
prob - prevprob = 1.15028e-005
sumdiff - prevsumdiff = -3.25244e-008
Probability of good choice for population of 1066=48.7784
```

```
prob - prevprob = 1.14704e-005
sumdiff - prevsumdiff = -3.23719e-008
Probability of good choice for population of 1068=48.7795
prob - prevprob = 1.14382e-005
sumdiff - prevsumdiff = -3.22203e-008
Probability of good choice for population of 1070=48.7807
prob - prevprob = 1.14061e-005
sumdiff - prevsumdiff = -3.20698e-008
Probability of good choice for population of 1072=48.7818
prob - prevprob = 1.13742e-005
sumdiff - prevsumdiff = -3.19202e-008
Probability of good choice for population of 1074=48.783
prob - prevprob = 1.13425e-005
sumdiff - prevsumdiff = -3.17716e-008
Probability of good choice for population of 1076=48.7841
prob - prevprob = 1.13108e-005
sumdiff - prevsumdiff = -3.16239e-008
Probability of good choice for population of 1078=48.7852
prob - prevprob = 1.12794e-005
sumdiff - prevsumdiff = -3.14773e-008
Probability of good choice for population of 1080=48.7863
prob - prevprob = 1.1248e-005
sumdiff - prevsumdiff = -3.13315e-008
Probability of good choice for population of 1082=48.7875
prob - prevprob = 1.12168e-005
sumdiff - prevsumdiff = -3.11868e-008
Probability of good choice for population of 1084=48.7886
prob - prevprob = 1.11858e-005
sumdiff - prevsumdiff = -3.10429e-008
Probability of good choice for population of 1086=48.7897
prob - prevprob = 1.11549e-005
sumdiff - prevsumdiff = -3.09e-008
Probability of good choice for population of 1088=48.7908
prob - prevprob = 1.11241e-005
sumdiff - prevsumdiff = -3.0758e-008
Probability of good choice for population of 1090=48.7919
prob - prevprob = 1.10935e-005
sumdiff - prevsumdiff = -3.06169e-008
Probability of good choice for population of 1092=48.793
prob - prevprob = 1.1063e-005
sumdiff - prevsumdiff = -3.04767e-008
Probability of good choice for population of 1094=48.7941
prob - prevprob = 1.10327e-005
sumdiff - prevsumdiff = -3.03374e-008
Probability of good choice for population of 1096=48.7952
prob - prevprob = 1.10025e-005
sumdiff - prevsumdiff = -3.0199e-008
Probability of good choice for population of 1098=48.7963
```

```
prob - prevprob = 1.09724e-005
sumdiff - prevsumdiff = -3.00615e-008
Probability of good choice for population of 1100=48.7974
prob - prevprob = 1.09425e-005
sumdiff - prevsumdiff = -2.99248e-008
Probability of good choice for population of 1102=48.7985
prob - prevprob = 1.09127e-005
sumdiff - prevsumdiff = -2.97891e-008
Probability of good choice for population of 1104=48.7996
prob - prevprob = 1.08831e-005
sumdiff - prevsumdiff = -2.96542e-008
Probability of good choice for population of 1106=48.8007
prob - prevprob = 1.08536e-005
sumdiff - prevsumdiff = -2.95201e-008
Probability of good choice for population of 1108=48.8018
prob - prevprob = 1.08242e-005
sumdiff - prevsumdiff = -2.93869e-008
Probability of good choice for population of 1110=48.8028
prob - prevprob = 1.07949e-005
sumdiff - prevsumdiff = -2.92545e-008
Probability of good choice for population of 1112=48.8039
prob - prevprob = 1.07658e-005
sumdiff - prevsumdiff = -2.9123e-008
Probability of good choice for population of 1114=48.805
prob - prevprob = 1.07368e-005
sumdiff - prevsumdiff = -2.89923e-008
Probability of good choice for population of 1116=48.8061
prob - prevprob = 1.07079e-005
sumdiff - prevsumdiff = -2.88624e-008
Probability of good choice for population of 1118=48.8071
prob - prevprob = 1.06792e-005
sumdiff - prevsumdiff = -2.87333e-008
Probability of good choice for population of 1120=48.8082
prob - prevprob = 1.06506e-005
sumdiff - prevsumdiff = -2.8605e-008
Probability of good choice for population of 1122=48.8093
prob - prevprob = 1.06221e-005
sumdiff - prevsumdiff = -2.84775e-008
Probability of good choice for population of 1124=48.8103
prob - prevprob = 1.05938e-005
sumdiff - prevsumdiff = -2.83509e-008
Probability of good choice for population of 1126=48.8114
prob - prevprob = 1.05655e-005
sumdiff - prevsumdiff = -2.8225e-008
Probability of good choice for population of 1128=48.8124
prob - prevprob = 1.05374e-005
sumdiff - prevsumdiff = -2.80999e-008
Probability of good choice for population of 1130=48.8135
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prob - prevprob = 1.05095e-005
sumdiff - prevsumdiff = -2.79755e-008
Probability of good choice for population of 1132=48.8145
prob - prevprob = 1.04816e-005
sumdiff - prevsumdiff = -2.7852e-008
Probability of good choice for population of 1134=48.8156
prob - prevprob = 1.04539e-005
sumdiff - prevsumdiff = -2.77291e-008
Probability of good choice for population of 1136=48.8166
prob - prevprob = 1.04263e-005
sumdiff - prevsumdiff = -2.76071e-008
Probability of good choice for population of 1138=48.8177
prob - prevprob = 1.03988e-005
sumdiff - prevsumdiff = -2.74858e-008
Probability of good choice for population of 1140=48.8187
prob - prevprob = 1.03714e-005
sumdiff - prevsumdiff = -2.73653e-008
Probability of good choice for population of 1142=48.8197
prob - prevprob = 1.03442e-005
sumdiff - prevsumdiff = -2.72454e-008
Probability of good choice for population of 1144=48.8208
prob - prevprob = 1.03171e-005
sumdiff - prevsumdiff = -2.71264e-008
Probability of good choice for population of 1146=48.8218
prob - prevprob = 1.02901e-005
sumdiff - prevsumdiff = -2.7008e-008
Probability of good choice for population of 1148=48.8228
prob - prevprob = 1.02632e-005
sumdiff - prevsumdiff = -2.68904e-008
Probability of good choice for population of 1150=48.8238
prob - prevprob = 1.02364e-005
sumdiff - prevsumdiff = -2.67735e-008
Probability of good choice for population of 1152=48.8249
prob - prevprob = 1.02097e-005
sumdiff - prevsumdiff = -2.66573e-008
Probability of good choice for population of 1154=48.8259
prob - prevprob = 1.01832e-005
sumdiff - prevsumdiff = -2.65418e-008
Probability of good choice for population of 1156=48.8269
prob - prevprob = 1.01568e-005
sumdiff - prevsumdiff = -2.6427e-008
Probability of good choice for population of 1158=48.8279
prob - prevprob = 1.01304e-005
sumdiff - prevsumdiff = -2.63129e-008
Probability of good choice for population of 1160=48.8289
prob - prevprob = 1.01042e-005
sumdiff - prevsumdiff = -2.61994e-008
Probability of good choice for population of 1162=48.8299
```

```
prob - prevprob = 1.00782e-005
sumdiff - prevsumdiff = -2.60867e-008
Probability of good choice for population of 1164=48.8309
prob - prevprob = 1.00522e-005
sumdiff - prevsumdiff = -2.59746e-008
Probability of good choice for population of 1166=48.8319
prob - prevprob = 1.00263e-005
sumdiff - prevsumdiff = -2.58633e-008
Probability of good choice for population of 1168=48.8329
prob - prevprob = 1.00006e-005
sumdiff - prevsumdiff = -2.57525e-008
Probability of good choice for population of 1170=48.8339
prob - prevprob = 9.97493e-006
sumdiff - prevsumdiff = -2.56425e-008
Probability of good choice for population of 1172=48.8349
prob - prevprob = 9.9494e-006
sumdiff - prevsumdiff = -2.55331e-008
Probability of good choice for population of 1174=48.8359
prob - prevprob = 9.92397e-006
sumdiff - prevsumdiff = -2.54244e-008
Probability of good choice for population of 1176=48.8369
prob - prevprob = 9.89866e-006
sumdiff - prevsumdiff = -2.53163e-008
Probability of good choice for population of 1178=48.8379
prob - prevprob = 9.87345e-006
sumdiff - prevsumdiff = -2.52088e-008
Probability of good choice for population of 1180=48.8389
prob - prevprob = 9.84834e-006
sumdiff - prevsumdiff = -2.5102e-008
Probability of good choice for population of 1182=48.8399
prob - prevprob = 9.82335e-006
sumdiff - prevsumdiff = -2.49958e-008
Probability of good choice for population of 1184=48.8408
prob - prevprob = 9.79846e-006
sumdiff - prevsumdiff = -2.48902e-008
Probability of good choice for population of 1186=48.8418
prob - prevprob = 9.77367e-006
sumdiff - prevsumdiff = -2.47853e-008
Probability of good choice for population of 1188=48.8428
prob - prevprob = 9.74899e-006
sumdiff - prevsumdiff = -2.4681e-008
Probability of good choice for population of 1190=48.8438
prob - prevprob = 9.72442e-006
sumdiff - prevsumdiff = -2.45773e-008
Probability of good choice for population of 1192=48.8447
prob - prevprob = 9.69994e-006
sumdiff - prevsumdiff = -2.44742e-008
Probability of good choice for population of 1194=48.8457
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```
prob - prevprob = 9.67557e-006
sumdiff - prevsumdiff = -2.43717e-008
Probability of good choice for population of 1196=48.8467
prob - prevprob = 9.6513e-006
sumdiff - prevsumdiff = -2.42698e-008
Probability of good choice for population of 1198=48.8476
prob - prevprob = 9.62713e-006
sumdiff - prevsumdiff = -2.41685e-008
Probability of good choice for population of 1200=48.8486
prob - prevprob = 9.60306e-006
sumdiff - prevsumdiff = -2.40678e-008
Probability of good choice for population of 1202=48.8496
prob - prevprob = 9.5791e-006
sumdiff - prevsumdiff = -2.39677e-008
Probability of good choice for population of 1204=48.8505
prob - prevprob = 9.55523e-006
sumdiff - prevsumdiff = -2.38682e-008
Probability of good choice for population of 1206=48.8515
prob - prevprob = 9.53146e-006
sumdiff - prevsumdiff = -2.37692e-008
Probability of good choice for population of 1208=48.8524
prob - prevprob = 9.50779e-006
sumdiff - prevsumdiff = -2.36708e-008
Probability of good choice for population of 1210=48.8534
prob - prevprob = 9.48421e-006
sumdiff - prevsumdiff = -2.3573e-008
Probability of good choice for population of 1212=48.8543
prob - prevprob = 9.46074e-006
sumdiff - prevsumdiff = -2.34758e-008
Probability of good choice for population of 1214=48.8552
prob - prevprob = 9.43736e-006
sumdiff - prevsumdiff = -2.33791e-008
Probability of good choice for population of 1216=48.8562
prob - prevprob = 9.41408e-006
sumdiff - prevsumdiff = -2.3283e-008
Probability of good choice for population of 1218=48.8571
prob - prevprob = 9.39089e-006
sumdiff - prevsumdiff = -2.31874e-008
Probability of good choice for population of 1220=48.8581
prob - prevprob = 9.3678e-006
sumdiff - prevsumdiff = -2.30923e-008
Probability of good choice for population of 1222=48.859
prob - prevprob = 9.3448e-006
sumdiff - prevsumdiff = -2.29979e-008
Probability of good choice for population of 1224=48.8599
prob - prevprob = 9.32189e-006
sumdiff - prevsumdiff = -2.29039e-008
Probability of good choice for population of 1226=48.8609
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```
prob - prevprob = 9.29908e-006
sumdiff - prevsumdiff = -2.28105e-008
Probability of good choice for population of 1228=48.8618
prob - prevprob = 9.27637e-006
sumdiff - prevsumdiff = -2.27176e-008
Probability of good choice for population of 1230=48.8627
prob - prevprob = 9.25374e-006
sumdiff - prevsumdiff = -2.26253e-008
Probability of good choice for population of 1232=48.8636
prob - prevprob = 9.23121e-006
sumdiff - prevsumdiff = -2.25335e-008
Probability of good choice for population of 1234=48.8646
prob - prevprob = 9.20877e-006
sumdiff - prevsumdiff = -2.24422e-008
Probability of good choice for population of 1236=48.8655
prob - prevprob = 9.18641e-006
sumdiff - prevsumdiff = -2.23514e-008
Probability of good choice for population of 1238=48.8664
prob - prevprob = 9.16415e-006
sumdiff - prevsumdiff = -2.22611e-008
Probability of good choice for population of 1240=48.8673
prob - prevprob = 9.14198e-006
sumdiff - prevsumdiff = -2.21713e-008
Probability of good choice for population of 1242=48.8682
prob - prevprob = 9.1199e-006
sumdiff - prevsumdiff = -2.20821e-008
Probability of good choice for population of 1244=48.8691
prob - prevprob = 9.09791e-006
sumdiff - prevsumdiff = -2.19933e-008
Probability of good choice for population of 1246=48.87
prob - prevprob = 9.076e-006
sumdiff - prevsumdiff = -2.19051e-008
Probability of good choice for population of 1248=48.8709
prob - prevprob = 9.05418e-006
sumdiff - prevsumdiff = -2.18173e-008
Probability of good choice for population of 1250=48.8718
prob - prevprob = 9.03245e-006
sumdiff - prevsumdiff = -2.173e-008
Probability of good choice for population of 1252=48.8727
prob - prevprob = 9.01081e-006
sumdiff - prevsumdiff = -2.16433e-008
Probability of good choice for population of 1254=48.8736
prob - prevprob = 8.98925e-006
sumdiff - prevsumdiff = -2.1557e-008
Probability of good choice for population of 1256=48.8745
prob - prevprob = 8.96778e-006
sumdiff - prevsumdiff = -2.14711e-008
Probability of good choice for population of 1258=48.8754
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```
prob - prevprob = 8.9464e-006
sumdiff - prevsumdiff = -2.13858e-008
Probability of good choice for population of 1260=48.8763
prob - prevprob = 8.9251e-006
sumdiff - prevsumdiff = -2.13009e-008
Probability of good choice for population of 1262=48.8772
prob - prevprob = 8.90388e-006
sumdiff - prevsumdiff = -2.12166e-008
Probability of good choice for population of 1264=48.8781
prob - prevprob = 8.88275e-006
sumdiff - prevsumdiff = -2.11326e-008
Probability of good choice for population of 1266=48.879
prob - prevprob = 8.8617e-006
sumdiff - prevsumdiff = -2.10492e-008
Probability of good choice for population of 1268=48.8799
prob - prevprob = 8.84073e-006
sumdiff - prevsumdiff = -2.09662e-008
Probability of good choice for population of 1270=48.8808
prob - prevprob = 8.81985e-006
sumdiff - prevsumdiff = -2.08836e-008
Probability of good choice for population of 1272=48.8816
prob - prevprob = 8.79905e-006
sumdiff - prevsumdiff = -2.08015e-008
Probability of good choice for population of 1274=48.8825
prob - prevprob = 8.77833e-006
sumdiff - prevsumdiff = -2.07199e-008
Probability of good choice for population of 1276=48.8834
prob - prevprob = 8.75769e-006
sumdiff - prevsumdiff = -2.06387e-008
Probability of good choice for population of 1278=48.8843
prob - prevprob = 8.73713e-006
sumdiff - prevsumdiff = -2.0558e-008
Probability of good choice for population of 1280=48.8851
prob - prevprob = 8.71665e-006
sumdiff - prevsumdiff = -2.04776e-008
Probability of good choice for population of 1282=48.886
prob - prevprob = 8.69625e-006
sumdiff - prevsumdiff = -2.03978e-008
Probability of good choice for population of 1284=48.8869
prob - prevprob = 8.67594e-006
sumdiff - prevsumdiff = -2.03184e-008
Probability of good choice for population of 1286=48.8877
prob - prevprob = 8.6557e-006
sumdiff - prevsumdiff = -2.02394e-008
Probability of good choice for population of 1288=48.8886
prob - prevprob = 8.63554e-006
sumdiff - prevsumdiff = -2.01608e-008
Probability of good choice for population of 1290=48.8895
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```
prob - prevprob = 8.61545e-006
sumdiff - prevsumdiff = -2.00826e-008
Probability of good choice for population of 1292=48.8903
prob - prevprob = 8.59545e-006
sumdiff - prevsumdiff = -2.00049e-008
Probability of good choice for population of 1294=48.8912
prob - prevprob = 8.57552e-006
sumdiff - prevsumdiff = -1.99276e-008
Probability of good choice for population of 1296=48.892
prob - prevprob = 8.55567e-006
sumdiff - prevsumdiff = -1.98507e-008
Probability of good choice for population of 1298=48.8929
prob - prevprob = 8.5359e-006
sumdiff - prevsumdiff = -1.97743e-008
Probability of good choice for population of 1300=48.8937
prob - prevprob = 8.5162e-006
sumdiff - prevsumdiff = -1.96982e-008
Probability of good choice for population of 1302=48.8946
prob - prevprob = 8.49657e-006
sumdiff - prevsumdiff = -1.96226e-008
Probability of good choice for population of 1304=48.8954
prob - prevprob = 8.47703e-006
sumdiff - prevsumdiff = -1.95473e-008
Probability of good choice for population of 1306=48.8963
prob - prevprob = 8.45756e-006
sumdiff - prevsumdiff = -1.94725e-008
Probability of good choice for population of 1308=48.8971
prob - prevprob = 8.43816e-006
sumdiff - prevsumdiff = -1.93981e-008
Probability of good choice for population of 1310=48.898
prob - prevprob = 8.41883e-006
sumdiff - prevsumdiff = -1.9324e-008
Probability of good choice for population of 1312=48.8988
prob - prevprob = 8.39958e-006
sumdiff - prevsumdiff = -1.92504e-008
Probability of good choice for population of 1314=48.8997
prob - prevprob = 8.38041e-006
sumdiff - prevsumdiff = -1.91771e-008
Probability of good choice for population of 1316=48.9005
prob - prevprob = 8.3613e-006
sumdiff - prevsumdiff = -1.91043e-008
Probability of good choice for population of 1318=48.9013
prob - prevprob = 8.34227e-006
sumdiff - prevsumdiff = -1.90318e-008
Probability of good choice for population of 1320=48.9022
prob - prevprob = 8.32331e-006
sumdiff - prevsumdiff = -1.89597e-008
Probability of good choice for population of 1322=48.903
```

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prob - prevprob = 8.30442e-006
sumdiff - prevsumdiff = -1.8888e-008
Probability of good choice for population of 1324=48.9038
prob - prevprob = 8.2856e-006
sumdiff - prevsumdiff = -1.88167e-008
Probability of good choice for population of 1326=48.9046
prob - prevprob = 8.26686e-006
sumdiff - prevsumdiff = -1.87457e-008
Probability of good choice for population of 1328=48.9055
prob - prevprob = 8.24818e-006
sumdiff - prevsumdiff = -1.86751e-008
Probability of good choice for population of 1330=48.9063
prob - prevprob = 8.22958e-006
sumdiff - prevsumdiff = -1.86049e-008
Probability of good choice for population of 1332=48.9071
prob - prevprob = 8.21104e-006
sumdiff - prevsumdiff = -1.85351e-008
Probability of good choice for population of 1334=48.9079
prob - prevprob = 8.19258e-006
sumdiff - prevsumdiff = -1.84656e-008
Probability of good choice for population of 1336=48.9087
prob - prevprob = 8.17418e-006
sumdiff - prevsumdiff = -1.83965e-008
Probability of good choice for population of 1338=48.9096
prob - prevprob = 8.15585e-006
sumdiff - prevsumdiff = -1.83278e-008
Probability of good choice for population of 1340=48.9104
prob - prevprob = 8.13759e-006
sumdiff - prevsumdiff = -1.82594e-008
Probability of good choice for population of 1342=48.9112
prob - prevprob = 8.1194e-006
sumdiff - prevsumdiff = -1.81913e-008
Probability of good choice for population of 1344=48.912
prob - prevprob = 8.10128e-006
sumdiff - prevsumdiff = -1.81237e-008
Probability of good choice for population of 1346=48.9128
prob - prevprob = 8.08322e-006
sumdiff - prevsumdiff = -1.80563e-008
Probability of good choice for population of 1348=48.9136
prob - prevprob = 8.06523e-006
sumdiff - prevsumdiff = -1.79894e-008
Probability of good choice for population of 1350=48.9144
prob - prevprob = 8.04731e-006
sumdiff - prevsumdiff = -1.79227e-008
Probability of good choice for population of 1352=48.9152
prob - prevprob = 8.02945e-006
sumdiff - prevsumdiff = -1.78565e-008
Probability of good choice for population of 1354=48.916
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prob - prevprob = 8.01166e-006
sumdiff - prevsumdiff = -1.77905e-008
Probability of good choice for population of 1356=48.9168
prob - prevprob = 7.99394e-006
sumdiff - prevsumdiff = -1.77249e-008
Probability of good choice for population of 1358=48.9176
prob - prevprob = 7.97628e-006
sumdiff - prevsumdiff = -1.76597e-008
Probability of good choice for population of 1360=48.9184
prob - prevprob = 7.95869e-006
sumdiff - prevsumdiff = -1.75947e-008
Probability of good choice for population of 1362=48.9192
prob - prevprob = 7.94115e-006
sumdiff - prevsumdiff = -1.75301e-008
Probability of good choice for population of 1364=48.92
prob - prevprob = 7.92369e-006
sumdiff - prevsumdiff = -1.74659e-008
Probability of good choice for population of 1366=48.9208
prob - prevprob = 7.90629e-006
sumdiff - prevsumdiff = -1.7402e-008
Probability of good choice for population of 1368=48.9216
prob - prevprob = 7.88895e-006
sumdiff - prevsumdiff = -1.73383e-008
Probability of good choice for population of 1370=48.9224
prob - prevprob = 7.87167e-006
sumdiff - prevsumdiff = -1.72751e-008
Probability of good choice for population of 1372=48.9232
prob - prevprob = 7.85446e-006
sumdiff - prevsumdiff = -1.72121e-008
Probability of good choice for population of 1374=48.9239
prob - prevprob = 7.83731e-006
sumdiff - prevsumdiff = -1.71495e-008
Probability of good choice for population of 1376=48.9247
prob - prevprob = 7.82022e-006
sumdiff - prevsumdiff = -1.70872e-008
Probability of good choice for population of 1378=48.9255
prob - prevprob = 7.8032e-006
sumdiff - prevsumdiff = -1.70252e-008
Probability of good choice for population of 1380=48.9263
prob - prevprob = 7.78624e-006
sumdiff - prevsumdiff = -1.69635e-008
Probability of good choice for population of 1382=48.9271
prob - prevprob = 7.76933e-006
sumdiff - prevsumdiff = -1.69021e-008
Probability of good choice for population of 1384=48.9278
prob - prevprob = 7.75249e-006
sumdiff - prevsumdiff = -1.6841e-008
Probability of good choice for population of 1386=48.9286
```

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prob - prevprob = 7.73571e-006
sumdiff - prevsumdiff = -1.67803e-008
Probability of good choice for population of 1388=48.9294
prob - prevprob = 7.71899e-006
sumdiff - prevsumdiff = -1.67198e-008
Probability of good choice for population of 1390=48.9301
prob - prevprob = 7.70233e-006
sumdiff - prevsumdiff = -1.66597e-008
Probability of good choice for population of 1392=48.9309
prob - prevprob = 7.68573e-006
sumdiff - prevsumdiff = -1.65999e-008
Probability of good choice for population of 1394=48.9317
prob - prevprob = 7.66919e-006
sumdiff - prevsumdiff = -1.65403e-008
Probability of good choice for population of 1396=48.9324
prob - prevprob = 7.65271e-006
sumdiff - prevsumdiff = -1.64811e-008
Probability of good choice for population of 1398=48.9332
prob - prevprob = 7.63629e-006
sumdiff - prevsumdiff = -1.64221e-008
Probability of good choice for population of 1400=48.934
prob - prevprob = 7.61993e-006
sumdiff - prevsumdiff = -1.63635e-008
Probability of good choice for population of 1402=48.9347
prob - prevprob = 7.60362e-006
sumdiff - prevsumdiff = -1.63051e-008
Probability of good choice for population of 1404=48.9355
prob - prevprob = 7.58737e-006
sumdiff - prevsumdiff = -1.62471e-008
Probability of good choice for population of 1406=48.9362
prob - prevprob = 7.57119e-006
sumdiff - prevsumdiff = -1.61893e-008
Probability of good choice for population of 1408=48.937
prob - prevprob = 7.55505e-006
sumdiff - prevsumdiff = -1.61318e-008
Probability of good choice for population of 1410=48.9378
prob - prevprob = 7.53898e-006
sumdiff - prevsumdiff = -1.60746e-008
Probability of good choice for population of 1412=48.9385
prob - prevprob = 7.52296e-006
sumdiff - prevsumdiff = -1.60177e-008
Probability of good choice for population of 1414=48.9393
prob - prevprob = 7.507e-006
sumdiff - prevsumdiff = -1.5961e-008
Probability of good choice for population of 1416=48.94
prob - prevprob = 7.4911e-006
sumdiff - prevsumdiff = -1.59047e-008
Probability of good choice for population of 1418=48.9408
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prob - prevprob = 7.47525e-006
sumdiff - prevsumdiff = -1.58486e-008
Probability of good choice for population of 1420=48.9415
prob - prevprob = 7.45945e-006
sumdiff - prevsumdiff = -1.57928e-008
Probability of good choice for population of 1422=48.9422
prob - prevprob = 7.44372e-006
sumdiff - prevsumdiff = -1.57372e-008
Probability of good choice for population of 1424=48.943
prob - prevprob = 7.42803e-006
sumdiff - prevsumdiff = -1.5682e-008
Probability of good choice for population of 1426=48.9437
prob - prevprob = 7.41241e-006
sumdiff - prevsumdiff = -1.5627e-008
Probability of good choice for population of 1428=48.9445
prob - prevprob = 7.39684e-006
sumdiff - prevsumdiff = -1.55723e-008
Probability of good choice for population of 1430=48.9452
prob - prevprob = 7.38132e-006
sumdiff - prevsumdiff = -1.55178e-008
Probability of good choice for population of 1432=48.9459
prob - prevprob = 7.36585e-006
sumdiff - prevsumdiff = -1.54637e-008
Probability of good choice for population of 1434=48.9467
prob - prevprob = 7.35044e-006
sumdiff - prevsumdiff = -1.54097e-008
Probability of good choice for population of 1436=48.9474
prob - prevprob = 7.33509e-006
sumdiff - prevsumdiff = -1.53561e-008
Probability of good choice for population of 1438=48.9481
prob - prevprob = 7.31979e-006
sumdiff - prevsumdiff = -1.53027e-008
Probability of good choice for population of 1440=48.9489
prob - prevprob = 7.30454e-006
sumdiff - prevsumdiff = -1.52496e-008
Probability of good choice for population of 1442=48.9496
prob - prevprob = 7.28934e-006
sumdiff - prevsumdiff = -1.51967e-008
Probability of good choice for population of 1444=48.9503
prob - prevprob = 7.2742e-006
sumdiff - prevsumdiff = -1.51441e-008
Probability of good choice for population of 1446=48.9511
prob - prevprob = 7.2591e-006
sumdiff - prevsumdiff = -1.50917e-008
Probability of good choice for population of 1448=48.9518
prob - prevprob = 7.24406e-006
sumdiff - prevsumdiff = -1.50396e-008
Probability of good choice for population of 1450=48.9525
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prob - prevprob = 7.22908e-006
sumdiff - prevsumdiff = -1.49877e-008
Probability of good choice for population of 1452=48.9532
prob - prevprob = 7.21414e-006
sumdiff - prevsumdiff = -1.49361e-008
Probability of good choice for population of 1454=48.9539
prob - prevprob = 7.19926e-006
sumdiff - prevsumdiff = -1.48847e-008
Probability of good choice for population of 1456=48.9547
prob - prevprob = 7.18442e-006
sumdiff - prevsumdiff = -1.48336e-008
Probability of good choice for population of 1458=48.9554
prob - prevprob = 7.16964e-006
sumdiff - prevsumdiff = -1.47828e-008
Probability of good choice for population of 1460=48.9561
prob - prevprob = 7.15491e-006
sumdiff - prevsumdiff = -1.47321e-008
Probability of good choice for population of 1462=48.9568
prob - prevprob = 7.14023e-006
sumdiff - prevsumdiff = -1.46818e-008
Probability of good choice for population of 1464=48.9575
prob - prevprob = 7.12559e-006
sumdiff - prevsumdiff = -1.46316e-008
Probability of good choice for population of 1466=48.9582
prob - prevprob = 7.11101e-006
sumdiff - prevsumdiff = -1.45817e-008
Probability of good choice for population of 1468=48.9589
prob - prevprob = 7.09648e-006
sumdiff - prevsumdiff = -1.4532e-008
Probability of good choice for population of 1470=48.9597
prob - prevprob = 7.082e-006
sumdiff - prevsumdiff = -1.44826e-008
Probability of good choice for population of 1472=48.9604
prob - prevprob = 7.06756e-006
sumdiff - prevsumdiff = -1.44334e-008
Probability of good choice for population of 1474=48.9611
prob - prevprob = 7.05318e-006
sumdiff - prevsumdiff = -1.43845e-008
Probability of good choice for population of 1476=48.9618
prob - prevprob = 7.03884e-006
sumdiff - prevsumdiff = -1.43357e-008
Probability of good choice for population of 1478=48.9625
prob - prevprob = 7.02456e-006
sumdiff - prevsumdiff = -1.42872e-008
Probability of good choice for population of 1480=48.9632
prob - prevprob = 7.01032e-006
sumdiff - prevsumdiff = -1.4239e-008
Probability of good choice for population of 1482=48.9639
```

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prob - prevprob = 6.99613e-006
sumdiff - prevsumdiff = -1.41909e-008
Probability of good choice for population of 1484=48.9646
prob - prevprob = 6.98198e-006
sumdiff - prevsumdiff = -1.41431e-008
Probability of good choice for population of 1486=48.9653
prob - prevprob = 6.96789e-006
sumdiff - prevsumdiff = -1.40955e-008
Probability of good choice for population of 1488=48.966
prob - prevprob = 6.95384e-006
sumdiff - prevsumdiff = -1.40482e-008
Probability of good choice for population of 1490=48.9667
prob - prevprob = 6.93984e-006
sumdiff - prevsumdiff = -1.4001e-008
Probability of good choice for population of 1492=48.9674
prob - prevprob = 6.92588e-006
sumdiff - prevsumdiff = -1.39541e-008
Probability of good choice for population of 1494=48.968
prob - prevprob = 6.91198e-006
sumdiff - prevsumdiff = -1.39074e-008
Probability of good choice for population of 1496=48.9687
prob - prevprob = 6.89812e-006
sumdiff - prevsumdiff = -1.38609e-008
Probability of good choice for population of 1498=48.9694
prob - prevprob = 6.8843e-006
sumdiff - prevsumdiff = -1.38147e-008
Probability of good choice for population of 1500=48.9701
prob - prevprob = 6.87053e-006
sumdiff - prevsumdiff = -1.37686e-008
Probability of good choice for population of 1502=48.9708
prob - prevprob = 6.85681e-006
sumdiff - prevsumdiff = -1.37228e-008
Probability of good choice for population of 1504=48.9715
prob - prevprob = 6.84313e-006
sumdiff - prevsumdiff = -1.36771e-008
Probability of good choice for population of 1506=48.9722
prob - prevprob = 6.8295e-006
sumdiff - prevsumdiff = -1.36317e-008
Probability of good choice for population of 1508=48.9728
prob - prevprob = 6.81591e-006
sumdiff - prevsumdiff = -1.35865e-008
Probability of good choice for population of 1510=48.9735
prob - prevprob = 6.80237e-006
sumdiff - prevsumdiff = -1.35416e-008
Probability of good choice for population of 1512=48.9742
prob - prevprob = 6.78888e-006
sumdiff - prevsumdiff = -1.34968e-008
Probability of good choice for population of 1514=48.9749
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prob - prevprob = 6.77542e-006
sumdiff - prevsumdiff = -1.34522e-008
Probability of good choice for population of 1516=48.9756
prob - prevprob = 6.76202e-006
sumdiff - prevsumdiff = -1.34078e-008
Probability of good choice for population of 1518=48.9762
prob - prevprob = 6.74865e-006
sumdiff - prevsumdiff = -1.33637e-008
Probability of good choice for population of 1520=48.9769
prob - prevprob = 6.73533e-006
sumdiff - prevsumdiff = -1.33197e-008
Probability of good choice for population of 1522=48.9776
prob - prevprob = 6.72206e-006
sumdiff - prevsumdiff = -1.3276e-008
Probability of good choice for population of 1524=48.9782
prob - prevprob = 6.70882e-006
sumdiff - prevsumdiff = -1.32324e-008
Probability of good choice for population of 1526=48.9789
prob - prevprob = 6.69564e-006
sumdiff - prevsumdiff = -1.3189e-008
Probability of good choice for population of 1528=48.9796
prob - prevprob = 6.68249e-006
sumdiff - prevsumdiff = -1.31459e-008
Probability of good choice for population of 1530=48.9803
prob - prevprob = 6.66939e-006
sumdiff - prevsumdiff = -1.31029e-008
Probability of good choice for population of 1532=48.9809
prob - prevprob = 6.65633e-006
sumdiff - prevsumdiff = -1.30602e-008
Probability of good choice for population of 1534=48.9816
prob - prevprob = 6.64331e-006
sumdiff - prevsumdiff = -1.30176e-008
Probability of good choice for population of 1536=48.9822
prob - prevprob = 6.63033e-006
sumdiff - prevsumdiff = -1.29752e-008
Probability of good choice for population of 1538=48.9829
prob - prevprob = 6.6174e-006
sumdiff - prevsumdiff = -1.2933e-008
Probability of good choice for population of 1540=48.9836
prob - prevprob = 6.60451e-006
sumdiff - prevsumdiff = -1.2891e-008
Probability of good choice for population of 1542=48.9842
prob - prevprob = 6.59166e-006
sumdiff - prevsumdiff = -1.28492e-008
Probability of good choice for population of 1544=48.9849
prob - prevprob = 6.57885e-006
sumdiff - prevsumdiff = -1.28076e-008
Probability of good choice for population of 1546=48.9855
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prob - prevprob = 6.56609e-006
sumdiff - prevsumdiff = -1.27662e-008
Probability of good choice for population of 1548=48.9862
prob - prevprob = 6.55336e-006
sumdiff - prevsumdiff = -1.2725e-008
Probability of good choice for population of 1550=48.9868
prob - prevprob = 6.54068e-006
sumdiff - prevsumdiff = -1.26839e-008
Probability of good choice for population of 1552=48.9875
prob - prevprob = 6.52803e-006
sumdiff - prevsumdiff = -1.26431e-008
Probability of good choice for population of 1554=48.9882
prob - prevprob = 6.51543e-006
sumdiff - prevsumdiff = -1.26024e-008
Probability of good choice for population of 1556=48.9888
prob - prevprob = 6.50287e-006
sumdiff - prevsumdiff = -1.25619e-008
Probability of good choice for population of 1558=48.9895
prob - prevprob = 6.49035e-006
sumdiff - prevsumdiff = -1.25216e-008
Probability of good choice for population of 1560=48.9901
prob - prevprob = 6.47787e-006
sumdiff - prevsumdiff = -1.24814e-008
Probability of good choice for population of 1562=48.9907
prob - prevprob = 6.46543e-006
sumdiff - prevsumdiff = -1.24415e-008
Probability of good choice for population of 1564=48.9914
prob - prevprob = 6.45302e-006
sumdiff - prevsumdiff = -1.24017e-008
Probability of good choice for population of 1566=48.992
prob - prevprob = 6.44066e-006
sumdiff - prevsumdiff = -1.23621e-008
Probability of good choice for population of 1568=48.9927
prob - prevprob = 6.42834e-006
sumdiff - prevsumdiff = -1.23227e-008
Probability of good choice for population of 1570=48.9933
prob - prevprob = 6.41606e-006
sumdiff - prevsumdiff = -1.22835e-008
Probability of good choice for population of 1572=48.994
prob - prevprob = 6.40381e-006
sumdiff - prevsumdiff = -1.22444e-008
Probability of good choice for population of 1574=48.9946
prob - prevprob = 6.39161e-006
sumdiff - prevsumdiff = -1.22055e-008
Probability of good choice for population of 1576=48.9952
prob - prevprob = 6.37944e-006
sumdiff - prevsumdiff = -1.21668e-008
Probability of good choice for population of 1578=48.9959
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prob - prevprob = 6.36731e-006
sumdiff - prevsumdiff = -1.21282e-008
Probability of good choice for population of 1580=48.9965
prob - prevprob = 6.35522e-006
sumdiff - prevsumdiff = -1.20898e-008
Probability of good choice for population of 1582=48.9971
prob - prevprob = 6.34317e-006
sumdiff - prevsumdiff = -1.20516e-008
Probability of good choice for population of 1584=48.9978
prob - prevprob = 6.33116e-006
sumdiff - prevsumdiff = -1.20136e-008
Probability of good choice for population of 1586=48.9984
prob - prevprob = 6.31918e-006
sumdiff - prevsumdiff = -1.19757e-008
Probability of good choice for population of 1588=48.999
prob - prevprob = 6.30724e-006
sumdiff - prevsumdiff = -1.1938e-008
Probability of good choice for population of 1590=48.9997
prob - prevprob = 6.29534e-006
sumdiff - prevsumdiff = -1.19005e-008
Probability of good choice for population of 1592=49.0003
prob - prevprob = 6.28348e-006
sumdiff - prevsumdiff = -1.18631e-008
Probability of good choice for population of 1594=49.0009
prob - prevprob = 6.27165e-006
sumdiff - prevsumdiff = -1.18259e-008
Probability of good choice for population of 1596=49.0016
prob - prevprob = 6.25986e-006
sumdiff - prevsumdiff = -1.17888e-008
Probability of good choice for population of 1598=49.0022
prob - prevprob = 6.24811e-006
sumdiff - prevsumdiff = -1.17519e-008
Probability of good choice for population of 1600=49.0028
prob - prevprob = 6.2364e-006
sumdiff - prevsumdiff = -1.17152e-008
Probability of good choice for population of 1602=49.0034
prob - prevprob = 6.22472e-006
sumdiff - prevsumdiff = -1.16786e-008
Probability of good choice for population of 1604=49.004
prob - prevprob = 6.21308e-006
sumdiff - prevsumdiff = -1.16422e-008
Probability of good choice for population of 1606=49.0047
prob - prevprob = 6.20147e-006
sumdiff - prevsumdiff = -1.1606e-008
Probability of good choice for population of 1608=49.0053
prob - prevprob = 6.1899e-006
sumdiff - prevsumdiff = -1.15699e-008
Probability of good choice for population of 1610=49.0059
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prob - prevprob = 6.17837e-006
sumdiff - prevsumdiff = -1.1534e-008
Probability of good choice for population of 1612=49.0065
prob - prevprob = 6.16687e-006
sumdiff - prevsumdiff = -1.14982e-008
Probability of good choice for population of 1614=49.0071
prob - prevprob = 6.15541e-006
sumdiff - prevsumdiff = -1.14626e-008
Probability of good choice for population of 1616=49.0077
prob - prevprob = 6.14398e-006
sumdiff - prevsumdiff = -1.14271e-008
Probability of good choice for population of 1618=49.0084
prob - prevprob = 6.13259e-006
sumdiff - prevsumdiff = -1.13918e-008
Probability of good choice for population of 1620=49.009
prob - prevprob = 6.12123e-006
sumdiff - prevsumdiff = -1.13566e-008
Probability of good choice for population of 1622=49.0096
prob - prevprob = 6.10991e-006
sumdiff - prevsumdiff = -1.13216e-008
Probability of good choice for population of 1624=49.0102
prob - prevprob = 6.09862e-006
sumdiff - prevsumdiff = -1.12868e-008
Probability of good choice for population of 1626=49.0108
prob - prevprob = 6.08737e-006
sumdiff - prevsumdiff = -1.12521e-008
Probability of good choice for population of 1628=49.0114
prob - prevprob = 6.07615e-006
sumdiff - prevsumdiff = -1.12175e-008
Probability of good choice for population of 1630=49.012
prob - prevprob = 6.06497e-006
sumdiff - prevsumdiff = -1.11831e-008
Probability of good choice for population of 1632=49.0126
prob - prevprob = 6.05382e-006
sumdiff - prevsumdiff = -1.11488e-008
Probability of good choice for population of 1634=49.0132
prob - prevprob = 6.04271e-006
sumdiff - prevsumdiff = -1.11147e-008
Probability of good choice for population of 1636=49.0138
prob - prevprob = 6.03162e-006
sumdiff - prevsumdiff = -1.10808e-008
Probability of good choice for population of 1638=49.0144
prob - prevprob = 6.02058e-006
sumdiff - prevsumdiff = -1.10469e-008
Probability of good choice for population of 1640=49.015
prob - prevprob = 6.00956e-006
sumdiff - prevsumdiff = -1.10133e-008
Probability of good choice for population of 1642=49.0156
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prob - prevprob = 5.99858e-006
sumdiff - prevsumdiff = -1.09797e-008
Probability of good choice for population of 1644=49.0162
prob - prevprob = 5.98764e-006
sumdiff - prevsumdiff = -1.09463e-008
Probability of good choice for population of 1646=49.0168
prob - prevprob = 5.97673e-006
sumdiff - prevsumdiff = -1.09131e-008
Probability of good choice for population of 1648=49.0174
prob - prevprob = 5.96585e-006
sumdiff - prevsumdiff = -1.088e-008
Probability of good choice for population of 1650=49.018
prob - prevprob = 5.955e-006
sumdiff - prevsumdiff = -1.0847e-008
Probability of good choice for population of 1652=49.0186
prob - prevprob = 5.94418e-006
sumdiff - prevsumdiff = -1.08142e-008
Probability of good choice for population of 1654=49.0192
prob - prevprob = 5.9334e-006
sumdiff - prevsumdiff = -1.07815e-008
Probability of good choice for population of 1656=49.0198
prob - prevprob = 5.92265e-006
sumdiff - prevsumdiff = -1.07489e-008
Probability of good choice for population of 1658=49.0204
prob - prevprob = 5.91194e-006
sumdiff - prevsumdiff = -1.07165e-008
Probability of good choice for population of 1660=49.021
prob - prevprob = 5.90125e-006
sumdiff - prevsumdiff = -1.06842e-008
Probability of good choice for population of 1662=49.0216
prob - prevprob = 5.8906e-006
sumdiff - prevsumdiff = -1.06521e-008
Probability of good choice for population of 1664=49.0222
prob - prevprob = 5.87998e-006
sumdiff - prevsumdiff = -1.06201e-008
Probability of good choice for population of 1666=49.0227
prob - prevprob = 5.86939e-006
sumdiff - prevsumdiff = -1.05882e-008
Probability of good choice for population of 1668=49.0233
prob - prevprob = 5.85884e-006
sumdiff - prevsumdiff = -1.05565e-008
Probability of good choice for population of 1670=49.0239
prob - prevprob = 5.84831e-006
sumdiff - prevsumdiff = -1.05249e-008
Probability of good choice for population of 1672=49.0245
prob - prevprob = 5.83782e-006
sumdiff - prevsumdiff = -1.04934e-008
Probability of good choice for population of 1674=49.0251
```

```
prob - prevprob = 5.82736e-006
sumdiff - prevsumdiff = -1.0462e-008
Probability of good choice for population of 1676=49.0257
prob - prevprob = 5.81693e-006
sumdiff - prevsumdiff = -1.04308e-008
Probability of good choice for population of 1678=49.0262
prob - prevprob = 5.80653e-006
sumdiff - prevsumdiff = -1.03997e-008
Probability of good choice for population of 1680=49.0268
prob - prevprob = 5.79616e-006
sumdiff - prevsumdiff = -1.03688e-008
Probability of good choice for population of 1682=49.0274
prob - prevprob = 5.78582e-006
sumdiff - prevsumdiff = -1.0338e-008
Probability of good choice for population of 1684=49.028
prob - prevprob = 5.77551e-006
sumdiff - prevsumdiff = -1.03073e-008
Probability of good choice for population of 1686=49.0286
prob - prevprob = 5.76523e-006
sumdiff - prevsumdiff = -1.02767e-008
Probability of good choice for population of 1688=49.0291
prob - prevprob = 5.75499e-006
sumdiff - prevsumdiff = -1.02463e-008
Probability of good choice for population of 1690=49.0297
prob - prevprob = 5.74477e-006
sumdiff - prevsumdiff = -1.0216e-008
Probability of good choice for population of 1692=49.0303
prob - prevprob = 5.73459e-006
sumdiff - prevsumdiff = -1.01858e-008
Probability of good choice for population of 1694=49.0309
prob - prevprob = 5.72443e-006
sumdiff - prevsumdiff = -1.01557e-008
Probability of good choice for population of 1696=49.0314
prob - prevprob = 5.71431e-006
sumdiff - prevsumdiff = -1.01258e-008
Probability of good choice for population of 1698=49.032
prob - prevprob = 5.70421e-006
sumdiff - prevsumdiff = -1.00959e-008
Probability of good choice for population of 1700=49.0326
prob - prevprob = 5.69414e-006
sumdiff - prevsumdiff = -1.00663e-008
Probability of good choice for population of 1702=49.0331
prob - prevprob = 5.68411e-006
sumdiff - prevsumdiff = -1.00367e-008
Probability of good choice for population of 1704=49.0337
prob - prevprob = 5.6741e-006
sumdiff - prevsumdiff = -1.00072e-008
Probability of good choice for population of 1706=49.0343
```

```
prob - prevprob = 5.66412e-006
sumdiff - prevsumdiff = -9.9779e-009
Probability of good choice for population of 1708=49.0348
prob - prevprob = 5.65417e-006
sumdiff - prevsumdiff = -9.94869e-009
Probability of good choice for population of 1710=49.0354
prob - prevprob = 5.64425e-006
sumdiff - prevsumdiff = -9.9196e-009
Probability of good choice for population of 1712=49.036
prob - prevprob = 5.63436e-006
sumdiff - prevsumdiff = -9.89063e-009
Probability of good choice for population of 1714=49.0365
prob - prevprob = 5.6245e-006
sumdiff - prevsumdiff = -9.86178e-009
Probability of good choice for population of 1716=49.0371
prob - prevprob = 5.61467e-006
sumdiff - prevsumdiff = -9.83304e-009
Probability of good choice for population of 1718=49.0376
prob - prevprob = 5.60486e-006
sumdiff - prevsumdiff = -9.80442e-009
Probability of good choice for population of 1720=49.0382
prob - prevprob = 5.59509e-006
sumdiff - prevsumdiff = -9.77592e-009
Probability of good choice for population of 1722=49.0388
prob - prevprob = 5.58534e-006
sumdiff - prevsumdiff = -9.74754e-009
Probability of good choice for population of 1724=49.0393
prob - prevprob = 5.57562e-006
sumdiff - prevsumdiff = -9.71927e-009
Probability of good choice for population of 1726=49.0399
prob - prevprob = 5.56593e-006
sumdiff - prevsumdiff = -9.69111e-009
Probability of good choice for population of 1728=49.0404
prob - prevprob = 5.55627e-006
sumdiff - prevsumdiff = -9.66307e-009
Probability of good choice for population of 1730=49.041
prob - prevprob = 5.54663e-006
sumdiff - prevsumdiff = -9.63514e-009
Probability of good choice for population of 1732=49.0415
prob - prevprob = 5.53702e-006
sumdiff - prevsumdiff = -9.60733e-009
Probability of good choice for population of 1734=49.0421
prob - prevprob = 5.52744e-006
sumdiff - prevsumdiff = -9.57963e-009
Probability of good choice for population of 1736=49.0426
prob - prevprob = 5.51789e-006
sumdiff - prevsumdiff = -9.55203e-009
Probability of good choice for population of 1738=49.0432
```

```
prob - prevprob = 5.50837e-006
sumdiff - prevsumdiff = -9.52455e-009
Probability of good choice for population of 1740=49.0437
prob - prevprob = 5.49887e-006
sumdiff - prevsumdiff = -9.49718e-009
Probability of good choice for population of 1742=49.0443
prob - prevprob = 5.4894e-006
sumdiff - prevsumdiff = -9.46993e-009
Probability of good choice for population of 1744=49.0448
prob - prevprob = 5.47996e-006
sumdiff - prevsumdiff = -9.44278e-009
Probability of good choice for population of 1746=49.0454
prob - prevprob = 5.47054e-006
sumdiff - prevsumdiff = -9.41573e-009
Probability of good choice for population of 1748=49.0459
prob - prevprob = 5.46115e-006
sumdiff - prevsumdiff = -9.3888e-009
Probability of good choice for population of 1750=49.0465
prob - prevprob = 5.45179e-006
sumdiff - prevsumdiff = -9.36198e-009
Probability of good choice for population of 1752=49.047
prob - prevprob = 5.44246e-006
sumdiff - prevsumdiff = -9.33526e-009
Probability of good choice for population of 1754=49.0476
prob - prevprob = 5.43315e-006
sumdiff - prevsumdiff = -9.30865e-009
Probability of good choice for population of 1756=inf
prob - prevprob = inf
sumdiff - prevsumdiff = inf
Probability of good choice for population of 1758=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1760=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1762=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1764=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1766=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1768=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1770=inf
```

```
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1772=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1774=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1776=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1778=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1780=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1782=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1784=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1786=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1788=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1790=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1792=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1794=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1796=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1798=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1800=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1802=inf
```

```
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1804=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1806=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1808=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1810=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1812=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1814=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1816=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1818=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1820=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1822=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1824=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1826=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1828=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1830=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1832=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1834=inf
```

```
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1836=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1838=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1840=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1842=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1844=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1846=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1848=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1850=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1852=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1854=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1856=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1858=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1860=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1862=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1864=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1866=inf
```

```
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1868=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1870=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1872=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1874=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1876=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1878=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1880=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1882=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1884=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1886=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1888=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1890=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1892=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1894=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1896=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1898=inf
```

```
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1900=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1902=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1904=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1906=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1908=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1910=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1912=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1914=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1916=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1918=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1920=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1922=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1924=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1926=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1928=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1930=inf
```

```
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1932=inf
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1934=nan
prob - prevprob = nan
sumdiff - prevsumdiff = nan
Probability of good choice for population of 1936=nan
prob - prevprob = nan
(Output truncated)
```

6 Acknowledgement

I dedicate this article to God.

7 Bibliography

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