```
With permutation 3b):

1.

    ************************************************************
  Documents Most Similar To Query number 6
    ************************************************************
    Similarity   Doc#  Author      Title
    ==========   ====  ========    ============================

*   0.21002736   1543 Howard       #  Computer Formulation of th
    0.20351658   356  Ingerman     #  INTEREST (Algorithm 45)
    0.20038027   740  Wright       #  INTEREST (Algorithm 45)
*   0.18475864   2078 Eastman      #  Representations for Space
    0.18256636   438  Gorn         #  Mechanical Pragmatics: A T
    0.16838377   136  Ingerman     #  A Note on the Calculation
*   0.14208068   2828 Clark        #  Hierarchical Geometric Mod
    0.12849758   242  Wilson       #  Notes on Geometric Weighte
    0.12358801   1009 Weinberg     #  Solution of Combinatorial
    0.11656377   2389 Eastman      #  Preliminary Report on a Sy
    0.11393833   1186 Lynch        #  Recursive Solution of a Cl
    0.11278336   3035 Wetherbe     #  A Strategic Planning Metho
    0.10671978   2671 Stone        #  A Note on a Combinatorial
    0.10516681   2230 Bracchi      #  A Language for Treating Ge
    0.10283454   2417 Ehrlich      #  Four Combinatorial Algorit
    0.10040089   705  Blakely      #  Combinatorial Of M Things
    0.10011241   1398 Sterling     #  Robot Data Screening: A So
    0.10002990   704  Collins      #  Combinatorial of M Things
    0.09771736   2187 Amarel       #  Computer Science: A Concep
    0.09632651   2826 Burtnyk      #  Interactive Skeleton Techn
    0.09538226   2753 Pfefferkorn  #  A Heuristic Problem Solvin

Show the terms that overlap between the query and retrieved docs (y/n): y
============================================================
Vector Overlap          6       1543  Docfreq
============================================================
motion                 22         27  13
============================================================
Vector Overlap          6        356  Docfreq
============================================================
interest               15         11  70
============================================================
Vector Overlap          6        740  Docfreq
============================================================
interest               15         11  70
============================================================
Vector Overlap          6       2078  Docfreq
============================================================
plan                    9         22  35
robot                  13         27  3
============================================================
Vector Overlap          6        438  Docfreq
============================================================
motion                 22         16  13
```

```
 55
 56  Continue (y/n)?
 57  ============================================================
 58  Vector Overlap          6        136  Docfreq
 59  ============================================================
 60  interest               15         11  70
 61  ============================================================
 62  Vector Overlap          6       2828  Docfreq
 63  ============================================================
 64  geometr                11         55  13
 65  motion                 22          5  13
 66  ============================================================
 67  Vector Overlap          6        242  Docfreq
 68  ============================================================
 69  geometr                11         22  13
 70  ============================================================
 71  Vector Overlap          6       1009  Docfreq
 72  ============================================================
 73  combinatori             9         18  29
 74  ============================================================
 75  Vector Overlap          6       2389  Docfreq
 76  ============================================================
 77  plan                    9         36  35
 78
 79  Continue (y/n)?
 80  ============================================================
 81  Vector Overlap          6       1186  Docfreq
 82  ============================================================
 83  combinatori             9         18  29
 84
 85
 86
 87
 88
 89
 90      ************************************************************
 91    Documents Most Similar To Query number 9
 92      ************************************************************
 93      Similarity   Doc#  Author      Title
 94      ==========   ==== ========     ==============================
 95
 96      0.52918307   1685 Schurmann    #  GAN, a System for Generati
 97      0.41612638   2949 Tajibnapis   #  A Correctness Proof of a T
 98  *   0.39925599   3158 Denning      #  Secure Personal Computing
 99      0.38787696   2197 Nielsen      #  The Merit of Regional Comp
100      0.36611288   2614 Crandall     #  Arrow to Precedence Networ
101      0.35131952   2776 Chambers     #  Computer Networks in Highe
102  *   0.34660689   3068 Popek        #  A Model for Verification o
103  *   0.33798295   3111 Merkle       #  Secure Communications Over
104      0.33004837   2951 Mamrak       #  Dynamic Response Time Pred
105      0.31717058   2969 Morgan       #  Optimal Program and Data L
106      0.30267472   1261 Larsen       #  Modeling and Simulation of
107      0.30209452   2515 Corneil      #  Minimal Event-Node Network
108      0.30187313   2864 Madison      #  Characteristics of Program
```

```
109       0.29458811   1695 Dill          #  PLEXUS-An On-Line System f
110   *   0.29306130   2372 Conway        #  On the Implementation of S
111       0.29139158   1723 Fisher        #  Computer Construction of P
112       0.28146492   2454 Buzen         #  Computational Algorithms f
113   *   0.27973219   2870 Denning       #  A Lattice Model of Secure
114       0.27316692   2621 Purdy         #  A High Security Log-in Pro
115       0.27262397   2371 Walden        #  A System for Interprocess
116       0.26819417   2581 Miller        #  A Locally-Organized Parser
117
118
119   Show the terms that overlap between the query and retrieved docs (y/n): y
120   ============================================================
121   Vector Overlap          9       1685  Docfreq
122   ============================================================
123   network                14        135  90
124   system                  5          5  728
125   ============================================================
126   Vector Overlap          9       2949  Docfreq
127   ============================================================
128   distribut               6         52  123
129   network                14         82  90
130   system                  5          5  728
131   oper                    4          8  381
132   ============================================================
133   Vector Overlap          9       3158  Docfreq
134   ============================================================
135   secur                   9         46  31
136   network                14         32  90
137   ============================================================
138   Vector Overlap          9       2197  Docfreq
139   ============================================================
140   network                14         75  90
141   oper                    4          2  381
142   ============================================================
143   Vector Overlap          9       2614  Docfreq
144   ============================================================
145   network                14         39  90
146
147   Continue (y/n)?
148   ============================================================
149   Vector Overlap          9       2776  Docfreq
150   ============================================================
151   consider                7          3  66
152   network                14         53  90
153   oper                    4          2  381
154   ============================================================
155   Vector Overlap          9       3068  Docfreq
156   ============================================================
157   secur                   9         51  31
158   system                  5         16  728
159   oper                    4         21  381
160   ============================================================
161   Vector Overlap          9       3111  Docfreq
162   ============================================================
```

```
distribut               6         13  123
secur                   9         83  31
network                14         14  90
============================================================
Vector Overlap          9       2951  Docfreq
============================================================
network                14         60  90
system                  5         17  728
============================================================
Vector Overlap          9       2969  Docfreq
============================================================
distribut               6         13  123
network                14         32  90

Continue (y/n)?
============================================================
Vector Overlap          9       1261  Docfreq
============================================================
network                14         28  90
system                  5          1  728



    ************************************************************
  Documents Most Similar To Query number 22
    ************************************************************
    Similarity   Doc#  Author      Title
    ==========   ==== ========     ==============================

*   0.41477337   2678 Wright       #  Visible Surface Plotting P
*   0.37730262   2751 Phong        #  Illumination for Computer
*   0.37114874   2384 Williamson   #  Hidden-Line Plotting Progr
*   0.36280972   2473 Macleod      #  Hidden-Line Plotting Progr
*   0.32763273   2369 Matsushita   #  Hidden Lines Elimination f
*   0.32255454   2564 Ellis        #  Hidden-Line Plotting Progr
*   0.32255454   2637 Ellis        #  Hidden-Line Plotting Progr
*   0.30906059   2441 Williamson   #  Hidden-Line Plotting Progr
*   0.29602729   2638 Gaither      #  Hidden-Line Plotting Progr
    0.26945738   2004 Bouknight    #  A Procedure for Generation
*   0.25912337   2827 Levin        #  A Parametric Algorithm for
    0.24638178   1915 Galimberti   #  An Algorithm for Hidden Li
*   0.24533004   2829 Blinn        #  Texture and Reflection in
    0.20927606   2913 Crow         #  The Aliasing Problem in Co
*   0.20421055   2828 Clark        #  Hierarchical Geometric Mod
    0.19612527   52   Cook         #  An Efficient Method for Ge
    0.18365510   88   Hicks        #  An Efficient Method for Ge
    0.18066250   266  Robinson     #  Fitting Spheres by the Met
    0.16421981   1978 Smith        #  The Use of Interactive Gra
    0.16218509   2841 Clark        #  Designing Surfaces in 3-D

Show the terms that overlap between the query and retrieved docs (y/n): y
============================================================
Vector Overlap         22       2678  Docfreq
```

```
============================================================
algorithm               1          2  1342
surfac                  9         32  33
graphic                 7         14  80
comput                  2          4  926
hidden                 20         20  17
line                    6         13  110
============================================================
Vector Overlap         22       2751  Docfreq
============================================================
algorithm               1          2  1342
surfac                  9         32  33
graphic                 7         29  80
comput                  2          9  926
hidden                 20         36  17
============================================================
Vector Overlap         22       2384  Docfreq
============================================================
algorithm               1          2  1342
surfac                  9         18  33
hidden                 20         36  17
line                    6         23  110
============================================================
Vector Overlap         22       2473  Docfreq
============================================================
algorithm               1          2  1342
surfac                  9         18  33
hidden                 20         36  17
line                    6         23  110
============================================================
Vector Overlap         22       2369  Docfreq
============================================================
graphic                 7         29  80
comput                  2          9  926
hidden                 20         41  17
line                    6         26  110

Continue (y/n)?
============================================================
Vector Overlap         22       2564  Docfreq
============================================================
algorithm               1          2  1342
hidden                 20         15  17
line                    6         10  110
============================================================
Vector Overlap         22       2637  Docfreq
============================================================
algorithm               1          2  1342
hidden                 20         15  17
line                    6         10  110
============================================================
Vector Overlap         22       2441  Docfreq
============================================================
algorithm               1          2  1342
```

```
271   hidden                 20         15  17
272   line                    6         10  110
273   ============================================================
274   Vector Overlap         22       2638  Docfreq
275   ============================================================
276   algorithm               1          2  1342
277   hidden                 20         15  17
278   line                    6         10  110
279   ============================================================
280   Vector Overlap         22       2004  Docfreq
281   ============================================================
282   algorithm               1          4  1342
283   surfac                  9         41  33
284   graphic                 7         25  80
285   comput                  2         13  926
286   hidden                 20         20  17
287   line                    6         13  110
288
289   Continue (y/n)?
290   ============================================================
291   Vector Overlap         22       2827  Docfreq
292   ============================================================
293   algorithm               1          4  1342
294   surfac                  9         77  33
295   graphic                 7         14  80
296   comput                  2          4  926
297   hidden                 20         26  17
298
299
300
301
302
303
304   3.
305
306      ************************************************************
307     Documents Most Similar To Document number 239
308      ************************************************************
309      Similarity   Doc#  Author      Title
310      ==========   ==== ========     ==============================
311
312      1.00000000   239  Verhoeff     #  Inefficiency of the Use of
313      0.56849762   1032 Belzer       #  Theoretical Considerations
314      0.21175483   2965 Hanani       #  An Optimal Evaluation of B
315      0.20784559   3168 Laird        #  Comment on "An Optimal Eva
316      0.19699697   2160 Wong         #  Canonical Structure in Att
317      0.18748378   3169 Gudes        #  Note on "An Optimal Evalua
318      0.15633700   3012 Lucas        #  The Use of an Interactive
319      0.15361459   3134 Motzkin      #  The Use of Normal Multipli
320      0.14880001   1207 Dodd         #  Remarks on Simulation of B
321      0.14875752   1329 Mano         #  Simulation of Boolean Func
322      0.14387306   1457 Salton       #  Data Manipulation and Prog
323      0.14022802   891  Whitley      #  Everyman's Information Ret
324      0.12823256   651  Grems        #  A Survey of Languages and
```

```
  0.12480715   2278 Tan          #  On Foster's Information St
  0.12107457   1699 Rubinoff     #  Experimental Evaluation of
  0.11682826   635  Baker        #  A Note on Multiplying Bool
  0.11579026   275  Sams         #  Dynamic Storage Allocation
  0.11437755   634  Salton       #  Manipulation of Trees in I
  0.11216122   2345 Ashenhurst   #  Curriculum Recommendations
  0.11032076   2516 Salasin      #  Hierarchical Storage in In
  0.10784234   2140 Mullin       #  Retrieval-Update Speed Tra


  ************************************************************
Documents Most Similar To Document number 1236
  ************************************************************
  Similarity   Doc#  Author      Title
  ==========   ====  ========    ==============================

  1.00000000   1236 Salton       #  The SMART Automatic Docume
  0.34964558   634  Salton       #  Manipulation of Trees in I
  0.34598550   1699 Rubinoff     #  Experimental Evaluation of
  0.33443320   2711 Salton       #  A Vector Space Model for A
  0.30467298   2307 Salton       #  Dynamic Document Processin
  0.29321057   1457 Salton       #  Data Manipulation and Prog
  0.27846861   2575 Van          #  The Best-Match Problem in
  0.23597347   1681 Rubinoff     #  Easy English,a Language fo
  0.23453393   2990 Yu
  0.22245364   1032 Belzer       #  Theoretical Considerations
  0.21166700   3012 Lucas        #  The Use of an Interactive
  0.20299051   3134 Motzkin      #  The Use of Normal Multipli
  0.17817917   2293 Jones        #  Comment on Average Binary
  0.17475402   891  Whitley      #  Everyman's Information Ret
  0.17474206   2140 Mullin       #  Retrieval-Update Speed Tra
  0.16965934   1536 Lesk         #  Dynamic Computation of Der
  0.16182354   1935 Arora        #  Randomized Binary Search T
  0.16070823   1271 Davis        #  Secondary Key Retrieval Us
  0.15524160   651  Grems        #  A Survey of Languages and
  0.15418592   1680 Engvold      #  A General-Purpose Display
  0.15371785   2157 Flores       #  Average Binary Search Leng


  ************************************************************
Documents Most Similar To Document number 2740
  ************************************************************
  Similarity   Doc#  Author      Title
  ==========   ====  ========    ==============================

  1.00000000   2740 Lauesen      #  A Large Semaphore Based Op
  0.31222130   1749 Dijkstra     #  The Structure of the "THE"
  0.28679769   2379 Liskov       #  The Design of the Venus Op
  0.27574815   2597 Hoare        #  Monitors: An Operating Sys
  0.27110798   3043 Hansen       #  Distributed Processes: A C
  0.26309867   2700 Lipton       #  Reduction: A Method of Pro
  0.25401819   2618 Lamport      #  A New Solution of Dijkstra
  0.24792167   2376 Habermann    #  Synchronization of Communi
  0.24362829   2866 Howard       #  Proving Monitors
```

```
379       0.23251429   2500 Frailey      #  A Practical Approach to Ma
380       0.22777362   2228 Holt         #  Comments on Prevention of
381       0.22438410   2920 Devillers    #  Game Interpretation of the
382       0.22230500   2280 Parnas       #  Comment on Deadlock Preven
383       0.22161433   3128 Reed         #  Synchronization with Event
384       0.21423306   1611 Klein        #  Scheduling Project Network
385       0.21074517   2482 Howard       #  Mixed Solutions for the De
386       0.19534673   2080 Hansen       #  The Nucleus of a Multiprog
387       0.19258408   2320 Hansen       #  Structured Multiprogrammin
388       0.18766565   2777 Parnas       #  On a Solution to the Cigar
389       0.18088493   2738 Parnas       #  Use of the Concept of Tran
390       0.17666555   2378 Gaines       #  An Operating System Based
391
392
393
394
```