

Молдавский Государственный Университет

Факультет Математики и Информатики

Департамент Информатики

Индивидуальная работа

[№6]

по предмету Операционные системы

Проверила: Butnaru Mariana, lector universitar

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Кишинев, 2023

Ход работы

Задание 1:

Перенести третью по счёту с конца строку в начало файла. Для начала при помощи команды `sed -i "1i\\$(cat query1 | tail -n 3 | head -n 1)" query1` копируем данную строку в начало файла. Затем используя `sed -i "$((($(wc -l < query1) - 2))d" query1` удаляем оригинальную строку.

```
user@DESKTOP-NS2ETAK: ~/Lab6
user@DESKTOP-NS2ETAK:~/Lab6$ cat query1
7369 JOHN Q SMITH CLERK RESEARCH DALLAS 800
7499 KEVIN J ALLEN SALESPERSON SALES CHICAGO 1600
7505 JEAN K DOYLE MANAGER SALES NEW-YORK 2850
7506 LYNN S DENNIS MANAGER SALES DALLAS 2750
7507 LESLIE D BAKER MANAGER OPERATIONS NEW-YORK 2200
7521 CYNTHIA D WARD SALESPERSON SALES CHICAGO 1250
7555 DANIEL T PETERS SALESPERSON SALES NEW-YORK 1250
7557 KAREN P SHAW SALESPERSON SALES NEW-YORK 1250
7560 SARAH S DUNCAN SALESPERSON SALES DALLAS 1250
7564 GREGORY J LANGE SALESPERSON SALES DALLAS 1250
7566 TERRY M JONES MANAGER RESEARCH DALLAS 2975
7569 CHRIS L ALBERTS MANAGER RESEARCH NEW-YORK 3000
7600 RAYMOND Y PORTER SALESPERSON SALES NEW-YORK 1250
7609 RICHARD M LEWIS STAFF OPERATIONS DALLAS 1800
7654 KENNETH J MARTIN SALESPERSON SALES CHICAGO 1250
7676 DENISE D SOMMERS STAFF OPERATIONS CHICAGO 1850
7698 MARION S BLAKE MANAGER SALES CHICAGO 2850
7782 CAROL F CLARK MANAGER ACCOUNTING NEW-YORK 2450
7788 DONALD T SCOTT ANALYST RESEARCH DALLAS 3000
7789 LIVIA N WEST SALESPERSON SALES DALLAS 1500
7799 MATTHEW G FISHER ANALYST RESEARCH NEW-YORK 3000
7820 PAUL S ROSS SALESPERSON SALES BOSTON 1300
7839 FRANCIS A KING PRESIDENT ACCOUNTING NEW-YORK 5000
7876 DIANE G ADAMS CLERK RESEARCH DALLAS 1100
7900 FRED S JAMES CLERK SALES CHICAGO 950
7902 JENNIFER D FORD ANALYST RESEARCH DALLAS 3000
7916 GRACE M ROBERTS ANALYST RESEARCH NEW-YORK 2875
7919 MICHAEL A DOUGLAS CLERK RESEARCH NEW-YORK 800
7934 BARBARA M MILLER CLERK ACCOUNTING NEW-YORK 1300
7950 ALICE B JENSEN CLERK SALES NEW-YORK 750
7954 JAMES T MURRAY CLERK SALES DALLAS 750
user@DESKTOP-NS2ETAK:~/Lab6$ sed -i "1i\\$(cat query1 | tail -n 3 | head -n 1)" query1
user@DESKTOP-NS2ETAK:~/Lab6$ sed -i "$((($(wc -l < query1) - 2))d" query1
user@DESKTOP-NS2ETAK:~/Lab6$ cat query1
7934 BARBARA M MILLER CLERK ACCOUNTING NEW-YORK 1300
7369 JOHN Q SMITH CLERK RESEARCH DALLAS 800
7499 KEVIN J ALLEN SALESPERSON SALES CHICAGO 1600
7505 JEAN K DOYLE MANAGER SALES NEW-YORK 2850
7506 LYNN S DENNIS MANAGER SALES DALLAS 2750
7507 LESLIE D BAKER MANAGER OPERATIONS NEW-YORK 2200
7521 CYNTHIA D WARD SALESPERSON SALES CHICAGO 1250
7555 DANIEL T PETERS SALESPERSON SALES NEW-YORK 1250
7557 KAREN P SHAW SALESPERSON SALES NEW-YORK 1250
7560 SARAH S DUNCAN SALESPERSON SALES DALLAS 1250
7564 GREGORY J LANGE SALESPERSON SALES DALLAS 1250
7566 TERRY M JONES MANAGER RESEARCH DALLAS 2975
7569 CHRIS L ALBERTS MANAGER RESEARCH NEW-YORK 3000
7600 RAYMOND Y PORTER SALESPERSON SALES NEW-YORK 1250
7609 RICHARD M LEWIS STAFF OPERATIONS DALLAS 1800
7654 KENNETH J MARTIN SALESPERSON SALES CHICAGO 1250
7676 DENISE D SOMMERS STAFF OPERATIONS CHICAGO 1850
7698 MARION S BLAKE MANAGER SALES CHICAGO 2850
7782 CAROL F CLARK MANAGER ACCOUNTING NEW-YORK 2450
7788 DONALD T SCOTT ANALYST RESEARCH DALLAS 3000
7789 LIVIA N WEST SALESPERSON SALES DALLAS 1500
7799 MATTHEW G FISHER ANALYST RESEARCH NEW-YORK 3000
7820 PAUL S ROSS SALESPERSON SALES BOSTON 1300
7839 FRANCIS A KING PRESIDENT ACCOUNTING NEW-YORK 5000
7876 DIANE G ADAMS CLERK RESEARCH DALLAS 1100
7900 FRED S JAMES CLERK SALES CHICAGO 950
7902 JENNIFER D FORD ANALYST RESEARCH DALLAS 3000
7916 GRACE M ROBERTS ANALYST RESEARCH NEW-YORK 2875
7919 MICHAEL A DOUGLAS CLERK RESEARCH NEW-YORK 800
```

Задание 2:

Выбрать все строки, где операции были на сумму > 1000. Для этого используем cat | grep “^.\{86\}[1-9][0-9][0-9][0-9]” query1.

```
user@DESKTOP-NS2ETAK:~/Lab6$ cat query1
7934 BARBARA M MILLER CLERK ACCOUNTING NEW-YORK 1300
7369 JOHN Q SMITH CLERK RESEARCH DALLAS 800
7499 KEVIN J ALLEN SALESPERSON SALES CHICAGO 1600
7505 JEAN K DOYLE MANAGER SALES NEW-YORK 2850
7506 LYNN S DENNIS MANAGER SALES DALLAS 2750
7507 LESLIE D BAKER MANAGER OPERATIONS NEW-YORK 2200
7521 CYNTHIA D WARD SALESPERSON SALES CHICAGO 1250
7555 DANIEL T PETERS SALESPERSON SALES NEW-YORK 1250
7557 KAREN P SHAW SALESPERSON SALES NEW-YORK 1250
7560 SARAH S DUNCAN SALESPERSON SALES DALLAS 1250
7564 GREGORY J LANGE SALESPERSON SALES DALLAS 1250
7566 TERRY M JONES MANAGER RESEARCH DALLAS 2975
7569 CHRIS L ALBERTS MANAGER RESEARCH NEW-YORK 3000
7600 RAYMOND Y PORTER SALESPERSON SALES NEW-YORK 1250
7609 RICHARD M LEWIS STAFF OPERATIONS DALLAS 1800
7654 KENNETH J MARTIN SALESPERSON SALES CHICAGO 1250
7676 DENISE D SOMMERS STAFF OPERATIONS CHICAGO 1850
7698 MARION S BLAKE MANAGER SALES CHICAGO 2850
7782 CAROL F CLARK MANAGER ACCOUNTING NEW-YORK 2450
7788 DONALD T SCOTT ANALYST RESEARCH DALLAS 3000
7789 LIVIA N WEST SALESPERSON SALES DALLAS 1500
7799 MATTHEW G FISHER ANALYST RESEARCH NEW-YORK 3000
7820 PAUL S ROSS SALESPERSON SALES BOSTON 1300
7839 FRANCIS A KING PRESIDENT ACCOUNTING NEW-YORK 5000
7876 DIANE G ADAMS CLERK RESEARCH DALLAS 1100
7900 FRED S JAMES CLERK SALES CHICAGO 950
7902 JENNIFER D FORD ANALYST RESEARCH DALLAS 3000
7916 GRACE M ROBERTS ANALYST RESEARCH NEW-YORK 2875
7919 MICHAEL A DOUGLAS CLERK RESEARCH NEW-YORK 800
7950 ALICE B JENSEN CLERK SALES NEW-YORK 750
7954 JAMES T MURRAY CLERK SALES DALLAS 750
user@DESKTOP-NS2ETAK:~/Lab6$ cat | grep "^.\{86\}[1-9][0-9][0-9][0-9]" query2
grep: Unmatched \{
^[[A^Z
[20]+ Stopped cat | grep --color=auto "^.\{86\}[1-9][0-9][0-9][0-9]" query2
user@DESKTOP-NS2ETAK:~/Lab6$ cat | grep "^.\{86\}[1-9][0-9][0-9][0-9]" query2
100:JOCKSPORTS :345 VIEWRIDGE :BELMONT :CA:96711:5986609:5000
101:TKB SPORT SHOP :490 BOLI RD. :REDWOOD CITY :CA:94061:3681223:10000
102:VOLLYRITE :9722 HAMILTON :BURLINGAME :CA:95133:6443341:7000
103:JUST TENNIS :HILLVIEW MALL :BURLINGAME :CA:97544:6779312:3000
104:EVERY MOUNTAIN :574 SURRY RD. :CUPERTINO :CA:93301:9962323:10000
105:K + T SPORTS :3476 EL PASEO :SANTA CLARA :CA:91003:3769966:5000
106:SHAPE UP :908 SEQUOIA :PALO ALTO :CA:94301:3649777:6000
107:WOMENS SPORTS :VALCO VILLAGE :SUNNYVALE :CA:93301:9674398:10000
108:NORTH WOODS HEALTH CENTER :98 LONE PINE WAY :HIBBING :MN:55649:5669123:8000
201:STADIUM SPORTS :47 IRVING PL. :NEW YORK :NY:10003:5555335:10000
202:HOOPS :2345 ADAMS AVE. :LEICESTER :MA:01524:5557542:5000
203:REBOUND SPORTS :2 E. 14TH ST. :NEW YORK :NY:10009:5555989:10000
204:THE POWER FORWARD :1 KNOTS LANDING :DALLAS :TX:75248:5550505:12000
205:POINT GUARD :20 THURSTON ST. :YONKERS :NY:10956:5554766:3000
206:THE COLISEUM :5678 WILBUR PL. :SCARSDALE :NY:10583:5550217:6000
207:FAST BREAK :1000 HERBERT LN. :CONCORD :MA:01742:5551298:7000
208:AL AND BOB'S SPORTS :260 YORKTOWN CT. :AUSTIN :TX:78731:5557631:4000
211:AT BAT :234 BEACHEM ST. :BROOKLINE :MA:02146:5557385:8000
212:ALL SPORT :1000 38TH ST. :BROOKLYN :NY:11210:5551739:6000
213:GOOD SPORT :400 46TH ST. :SUNNYSIDE :NY:11104:5553771:5000
214:AL'S PRO SHOP :45 SPRUCE ST. :SPRING :TX:77388:5555172:8000
215:BOB'S FAMILY SPORTS :400 E. 23RD :HOUSTON :TX:77026:5558015:8000
216:THE ALL AMERICAN :547 PRENTICE RD. :CHELSEA :MA:02150:5553047:5000
217:HIT, THROW, AND RUN :333 WOOD COURT :GRAPEVINE :TX:76051:5552352:6000
218:THE OUTFIELD :346 GARDEN BLVD. :FLUSHING :NY:11355:5552131:4000
221:WHEELS AND DEALS :2 MEMORIAL DRIVE :HOUSTON :TX:77007:5554139:10000
222:JUST BIKES :4000 PARKRIDGE BLVD. :DALLAS :TX:75205:5558735:4000
223:VELO SPORTS :23 WHITE ST. :MALDEN :MA:02148:5554983:5000
224:JOE'S BIKE SHOP :4500 FOX COURT :GRAND PRARIE :TX:75051:5559834:6000
225:BOB'S SWIM, CYCLE, AND RUN:300 HORSECREEK CIRCLE:IRVING :TX:75039:5558388:7000
226:CENTURY SHOP :8 DAGMAR DR. :HUNTINGTON :NY:11743:5553006:4000
227:THE TOUR :2500 GARDNER RD. :SOMERVILLE :MA:02144:5556673:5000
228:FITNESS FIRST :5000 85TH ST. :JACKSON HEIGHTS:NY:11372:5558710:4000
```

Задание 3:

Для подсчёта групп пользуемся командой cat | awk '{print \$5}' query1 }| sort | uniq -c

```
[5]+ Stopped cat | awk '{print $5}' query1 | sort | uniq -c
user@DESKTOP-NS2ETAK:~/Lab6$ cat query1
7934 BARBARA M MILLER CLERK ACCOUNTING NEW-YORK 1300
7369 JOHN Q SMITH CLERK RESEARCH DALLAS 800
7499 KEVIN J ALLEN SALESPERSON SALES CHICAGO 1600
7505 JEAN K DOYLE MANAGER SALES NEW-YORK 2850
7506 LYNN S DENNIS MANAGER SALES DALLAS 2750
7507 LESLIE D BAKER MANAGER OPERATIONS NEW-YORK 2200
7521 CYNTHIA D WARD SALESPERSON SALES CHICAGO 1250
7555 DANIEL T PETERS SALESPERSON SALES NEW-YORK 1250
7557 KAREN P SHAW SALESPERSON SALES NEW-YORK 1250
7560 SARAH S DUNCAN SALESPERSON SALES DALLAS 1250
7564 GREGORY J LANGE SALESPERSON SALES DALLAS 1250
7566 TERRY M JONES MANAGER RESEARCH DALLAS 2975
7569 CHRIS L ALBERTS MANAGER RESEARCH NEW-YORK 3000
7600 RAYMOND Y PORTER SALESPERSON SALES NEW-YORK 1250
7609 RICHARD M LEWIS STAFF OPERATIONS DALLAS 1800
7654 KENNETH J MARTIN SALESPERSON SALES CHICAGO 1250
7676 DENISE D SOMMERS STAFF OPERATIONS CHICAGO 1850
7698 MARION S BLAKE MANAGER SALES CHICAGO 2850
7782 CAROL F CLARK MANAGER ACCOUNTING NEW-YORK 2450
7788 DONALD T SCOTT ANALYST RESEARCH DALLAS 3000
7789 LIVIA N WEST SALESPERSON SALES DALLAS 1500
7799 MATTHEW G FISHER ANALYST RESEARCH NEW-YORK 3000
7820 PAUL S ROSS SALESPERSON SALES BOSTON 1300
7839 FRANCIS A KING PRESIDENT ACCOUNTING NEW-YORK 5000
7876 DIANE G ADAMS CLERK RESEARCH DALLAS 1100
7900 FRED S JAMES CLERK SALES CHICAGO 950
7902 JENNIFER D FORD ANALYST RESEARCH DALLAS 3000
7916 GRACE M ROBERTS ANALYST RESEARCH NEW-YORK 2875
7919 MICHAEL A DOUGLAS CLERK RESEARCH NEW-YORK 800
7950 ALICE B JENSEN CLERK SALES NEW-YORK 750
7954 JAMES T MURRAY CLERK SALES DALLAS 750
user@DESKTOP-NS2ETAK:~/Lab6$ cat | awk '{print $5}' query1 | sort | uniq -c
  4 ANALYST
  7 CLERK
  7 MANAGER
  1 PRESIDENT
 10 SALESPERSON
  2 STAFF
```

Или используем `cat | grep -oP '(?<=^.{27}).*?(?=\s)' query1 | sort | uniq -c`

```
user@DESKTOP-NS2ETAK:~/Lab6$ cat query1
7934 BARBARA M MILLER CLERK ACCOUNTING NEW-YORK 1300
7369 JOHN Q SMITH CLERK RESEARCH DALLAS 800
7499 KEVIN J ALLEN SALESPERSON SALES CHICAGO 1600
7505 JEAN K DOYLE MANAGER SALES NEW-YORK 2850
7506 LYNN S DENNIS MANAGER SALES DALLAS 2750
7507 LESLIE D BAKER MANAGER OPERATIONS NEW-YORK 2200
7521 CYNTHIA D WARD SALESPERSON SALES CHICAGO 1250
7555 DANIEL T PETERS SALESPERSON SALES NEW-YORK 1250
7557 KAREN P SHAW SALESPERSON SALES NEW-YORK 1250
7560 SARAH S DUNCAN SALESPERSON SALES DALLAS 1250
7564 GREGORY J LANGE SALESPERSON SALES DALLAS 1250
7566 TERRY M JONES MANAGER RESEARCH DALLAS 2975
7569 CHRIS L ALBERTS MANAGER RESEARCH NEW-YORK 3000
7600 RAYMOND Y PORTER SALESPERSON SALES NEW-YORK 1250
7609 RICHARD M LEWIS STAFF OPERATIONS DALLAS 1800
7654 KENNETH J MARTIN SALESPERSON SALES CHICAGO 1250
7676 DENISE D SOMMERS STAFF OPERATIONS CHICAGO 1850
7698 MARION S BLAKE MANAGER SALES CHICAGO 2850
7782 CAROL F CLARK MANAGER ACCOUNTING NEW-YORK 2450
7788 DONALD T SCOTT ANALYST RESEARCH DALLAS 3000
7789 LIVIA N WEST SALESPERSON SALES DALLAS 1500
7799 MATTHEW G FISHER ANALYST RESEARCH NEW-YORK 3000
7820 PAUL S ROSS SALESPERSON SALES BOSTON 1300
7839 FRANCIS A KING PRESIDENT ACCOUNTING NEW-YORK 5000
7876 DIANE G ADAMS CLERK RESEARCH DALLAS 1100
7900 FRED S JAMES CLERK SALES CHICAGO 950
7902 JENNIFER D FORD ANALYST RESEARCH DALLAS 3000
7916 GRACE M ROBERTS ANALYST RESEARCH NEW-YORK 2875
7919 MICHAEL A DOUGLAS CLERK RESEARCH NEW-YORK 800
7950 ALICE B JENSEN CLERK SALES NEW-YORK 750
7954 JAMES T MURRAY CLERK SALES DALLAS 750
user@DESKTOP-NS2ETAK:~/Lab6$ cat | grep -oP '(?<=^.{27}).*?(?=\s)' query1 | sort | uniq -c
  4 ANALYST
  7 CLERK
  7 MANAGER
  1 PRESIDENT
 10 SALESPERSON
  2 STAFF
```

Задание 4:

Выбрать все строки, где зарплаты > 1000. Для этого используем `cat | grep "^\.{59}\{1-9\}[0-9]\{0-9\}[0-9]" query1`.

```
user@DESKTOP-NS2ETAK: ~/Lab6$ cat | grep "^\.{59}\{1-9\}[0-9]\{0-9\}[0-9]" query1
7934 BARBARA M MILLER CLERK ACCOUNTING NEW-YORK 1300
7369 JOHN Q SMITH CLERK RESEARCH DALLAS 800
7499 KEVIN J ALLEN SALESPERSON SALES CHICAGO 1600
7505 JEAN K DOYLE MANAGER SALES NEW-YORK 2850
7506 LYNN S DENNIS MANAGER SALES DALLAS 2750
7507 LESLIE D BAKER MANAGER OPERATIONS NEW-YORK 2200
7521 CYNTHIA D WARD SALESPERSON SALES CHICAGO 1250
7555 DANIEL T PETERS SALESPERSON SALES NEW-YORK 1250
7557 KAREN P SHAW SALESPERSON SALES NEW-YORK 1250
7560 SARAH S DUNCAN SALESPERSON SALES DALLAS 1250
7564 GREGORY J LANGE SALESPERSON SALES DALLAS 1250
7566 TERRY M JONES MANAGER RESEARCH DALLAS 2975
7569 CHRIS L ALBERTS MANAGER RESEARCH NEW-YORK 3000
7600 RAYMOND Y PORTER SALESPERSON SALES NEW-YORK 1250
7609 RICHARD M LEWIS STAFF OPERATIONS DALLAS 1800
7654 KENNETH J MARTIN SALESPERSON SALES CHICAGO 1250
7676 DENISE D SOMMERS STAFF OPERATIONS CHICAGO 1850
7698 MARION S BLAKE MANAGER SALES CHICAGO 2850
7782 CAROL F CLARK MANAGER ACCOUNTING NEW-YORK 2450
7788 DONALD T SCOTT ANALYST RESEARCH DALLAS 3000
7789 LIVIA N WEST SALESPERSON SALES DALLAS 1500
7799 MATTHEW G FISHER ANALYST RESEARCH NEW-YORK 3000
7820 PAUL S ROSS SALESPERSON SALES BOSTON 1300
7839 FRANCIS A KING PRESIDENT ACCOUNTING NEW-YORK 5000
7876 DIANE G ADAMS CLERK RESEARCH DALLAS 1100
7900 FRED S JAMES CLERK SALES CHICAGO 950
7902 JENNIFER D FORD ANALYST RESEARCH DALLAS 3000
7916 GRACE M ROBERTS ANALYST RESEARCH NEW-YORK 2875
7919 MICHAEL A DOUGLAS CLERK RESEARCH NEW-YORK 800
7950 ALICE B JENSEN CLERK SALES NEW-YORK 750
7954 JAMES T MURRAY CLERK SALES DALLAS 750
user@DESKTOP-NS2ETAK:~/Lab6$ cat | grep "^\.{59}\{1-9\}[0-9]\{0-9\}[0-9]" query1
7934 BARBARA M MILLER CLERK ACCOUNTING NEW-YORK 1300
7499 KEVIN J ALLEN SALESPERSON SALES CHICAGO 1600
7505 JEAN K DOYLE MANAGER SALES NEW-YORK 2850
7506 LYNN S DENNIS MANAGER SALES DALLAS 2750
7507 LESLIE D BAKER MANAGER OPERATIONS NEW-YORK 2200
7521 CYNTHIA D WARD SALESPERSON SALES CHICAGO 1250
7555 DANIEL T PETERS SALESPERSON SALES NEW-YORK 1250
7557 KAREN P SHAW SALESPERSON SALES NEW-YORK 1250
7560 SARAH S DUNCAN SALESPERSON SALES DALLAS 1250
7564 GREGORY J LANGE SALESPERSON SALES DALLAS 1250
7566 TERRY M JONES MANAGER RESEARCH DALLAS 2975
7569 CHRIS L ALBERTS MANAGER RESEARCH NEW-YORK 3000
7600 RAYMOND Y PORTER SALESPERSON SALES NEW-YORK 1250
7609 RICHARD M LEWIS STAFF OPERATIONS DALLAS 1800
7654 KENNETH J MARTIN SALESPERSON SALES CHICAGO 1250
7676 DENISE D SOMMERS STAFF OPERATIONS CHICAGO 1850
7698 MARION S BLAKE MANAGER SALES CHICAGO 2850
7782 CAROL F CLARK MANAGER ACCOUNTING NEW-YORK 2450
7788 DONALD T SCOTT ANALYST RESEARCH DALLAS 3000
7789 LIVIA N WEST SALESPERSON SALES DALLAS 1500
7799 MATTHEW G FISHER ANALYST RESEARCH NEW-YORK 3000
7820 PAUL S ROSS SALESPERSON SALES BOSTON 1300
7839 FRANCIS A KING PRESIDENT ACCOUNTING NEW-YORK 5000
7876 DIANE G ADAMS CLERK RESEARCH DALLAS 1100
7900 JENNIFER D FORD ANALYST RESEARCH DALLAS 3000
7916 GRACE M ROBERTS ANALYST RESEARCH NEW-YORK 2875
```


Задание 4:

Выбрать строки у которых мин цена != 15 а макс цена != 20. Используем команду cat
| grep -v "^.\{36\}20" query3 | grep -v "^.\{43\}15"

```
105128!YELLOW JERSEY SADDLE PACK      !10      !8      !15-NOV-90
102136!RH: "GUIDE TO CYCLING"          !3.4     !2.8     !18-AUG-89
user@DESKTOP-NS2ETAK:~/Lab6$ cat | grep -v "^.\{36\}20" query3 | grep -v "^.\{43\}15"
100890!ACE TENNIS NET                  !58      !46.4    !01-JAN-89
100860!ACE TENNIS RACKET I             !35      !28      !01-JUN-90
100861!ACE TENNIS RACKET II            !45      !36      !01-JUN-90
100870!ACE TENNIS BALLS-3 PACK         !2.8     !2.4     !01-JAN-90
100871!ACE TENNIS BALLS-6 PACK         !5.6     !4.8     !01-JAN-90
101860!SP TENNIS RACKET                !24      !18      !15-FEB-89
101863!SP JUNIOR RACKET                !12.5    !9.4     !15-FEB-89
102130!RH: "GUIDE TO TENNIS"           !3.4     !2.8     !18-AUG-89
200376!SB ENERGY BAR-6 PACK          !2.4     !1.75    !15-NOV-90
200380!SB VITA SNACK-6 PACK            !4       !3.2     !15-NOV-90
103120!WIFF SOFTBALL BAT I             !25      !20      !01-JUN-90
103121!WIFF SOFTBALL BAT II           !30      !24      !01-JUN-90
103130!WIFF SOFTBALL, SMALL            !4.2     !3.6     !01-JAN-90
103131!WIFF SOFTBALL, LARGE           !4.5     !3.9     !01-JAN-90
102132!RH: "GUIDE TO SOFTBALL"         !3.4     !2.8     !18-AUG-89
104350!DUNK BASKETBALL INDOOR          !44      !35.3    !01-JUN-90
104351!DUNK BASKETBALL OUTDOOR         !26      !20.8    !01-JUN-90
104352!DUNK BASKETBALL PROFESSIONAL    !58.3    !40.8    !01-JUN-90
104360!DUNK HOOP                      !39      !32      !01-JAN-90
104361!DUNK HOOP W/FIBERGLASS BOARD    !50      !35      !01-JAN-90
104362!DUNK NETS - RAINBOW             !5       !4       !15-FEB-89
102134!RH: "GUIDE TO BASKETBALL"       !3.4     !2.8     !18-AUG-89
105123!YELLOW JERSEY BICYCLE HELMET    !40      !34      !01-JUN-90
105124!YELLOW JERSEY BICYCLE GLOVES    !15      !10      !01-JUN-90
105125!YELLOW JERSEY WATER BOTTLE      !3       !2.6     !01-JAN-90
105126!YELLOW JERSEY BOTTLE CAGE       !6       !5       !01-JAN-90
105127!YELLOW JERSEY FRAME PUMP        !6       !5       !15-NOV-90
105128!YELLOW JERSEY SADDLE PACK      !10      !8       !15-NOV-90
102136!RH: "GUIDE TO CYCLING"          !3.4     !2.8     !18-AUG-89
```