

■ - A COMPROBAR MEDIANTE EL PROCEDIMIENTO DE FACTORIZACION (1a FASE) Y SOLUCION (2a FASE)

```
usmd = Inverse[Ko].f;
```

```
% // MatrixForm
```

```

177 469 036 497 283 534 295 600 253 643 063 709 601
391 118 442 925 138 606 757 705 413 244 621 375 588
740 665 163 665 557 024 200 617 821 562 440 313 683
-----
293 338 832 193 853 955 068 279 059 933 466 031 691
25 814 838 011 723 797 134 764 373 398 607 132 999
-----
195 559 221 462 569 303 378 852 706 622 310 687 794
15 299 088 365 319 004 473 171 215 892 871 008 025
-----
67 693 576 660 120 143 477 295 167 676 953 699 621
1 192 612 823 390 409 646 946 407 485 690 441 909 187
-----
880 016 496 581 561 865 204 837 179 800 398 095 073
1 874 515 660 178 882 575 195 596 799 911 490 894 973
-----
880 016 496 581 561 865 204 837 179 800 398 095 073
52 535 144 995 098 469 039 333 614 867 433 010 981
-----
67 693 576 660 120 143 477 295 167 676 953 699 621
3 636 606 581 050 833 678 273 739 053 882 016 454 015
-----
1 760 032 993 163 123 730 409 674 359 600 796 190 146
279 101 598 604 553 510 172 086 821 784 836 553 412
-----
97 779 610 731 284 651 689 426 353 311 155 343 897
410 326 363 723 670 360 677 424 484 489 687 109 432
-----
293 338 832 193 853 955 068 279 059 933 466 031 691
913 122 417 935 023 085 270 226 018 742 006 463 743
-----
1 760 032 993 163 123 730 409 674 359 600 796 190 146
79 375 880 605 599 003 088 335 666 104 160 180 647
-----
135 387 153 320 240 286 954 590 335 353 907 399 242
528 580 979 005 673 839 636 928 227 862 707 913 677
-----
1 760 032 993 163 123 730 409 674 359 600 796 190 146
2 292 926 012 883 628 044 490 412 782 976 144 029 115
-----
1 760 032 993 163 123 730 409 674 359 600 796 190 146
316 547 195 588 739 767 417 569 072 365 028 930 327
-----
1 760 032 993 163 123 730 409 674 359 600 796 190 146
1 248 659 073 284 598 885 671 676 026 222 860 538 749
-----
1 760 032 993 163 123 730 409 674 359 600 796 190 146
3 787 539 915 508 734 189 741 008 661 263 741 809 259
-----
880 016 496 581 561 865 204 837 179 800 398 095 073
201 806 561 391 382 004 730 106 725 637 478 081 825
-----
135 387 153 320 240 286 954 590 335 353 907 399 242
7 033 428 724 723 402 732 889 950 689 725 798 039 287
-----
1 760 032 993 163 123 730 409 674 359 600 796 190 146
55 480 631 130 732 754 523 076 490 906 482 389 947
-----
293 338 832 193 853 955 068 279 059 933 466 031 691

```

02a- 1a FASE - FACTORIZACION DE LA SKYMATRIZ ORIGINAL A PARTIR DEL VECTOR S

■ COMANDO A UTILIZAR

```
Sf = SymmSkyMatrixFactor[S, 10.^(-12)][[1]]
```

{0, 1, 2, 5, 6, 7, 12, 18, 20, 22, 30, 39, 50, 51, 64, 74, 83, 87, 99, 104, 114},
 {
 1 1 15 35 1392 1 1 14 86448 13 23 21436765 74 39296 47 43 29792027
 64' 87' 32' 87' 87497' 70' 98' 29' 87497' 10' 98' 4273048512' 87' 87497' 35' 98' 36678528'
 513499392 48268942848 2674315597 40114733955 4558675152488 116928 9
 - 2674315597' - 2674315597' / 4558675152488' / 4558675152488' / 254684087530003' / 87497' / 10'
 33 2363513689 489367893 21928799477 231176704808268 59341392394490699 52896
 49' 2848699008' / 2674315597' / 1139668788122' / 254684087530003' - 6270966830143534407' / 87497'
 9 792564563 604166708 38462054649 162958443850098 529131670528328623
 35' 1' / 2136524256' / 2674315597' / 2279337576244' / 254684087530003' / 895852404306219201'
 895852404306219201 88 29792 23 4 85786189 6940662832 323536837507
 - 46939554092703274027' / 87' / 87497' / 35' / 49' / 534131064' / 2674315597' / 2279337576244'
 237639862749610 775133374099208345 39079341889291635567 328576878648922918189
 254684087530003' / 2090322276714511469' / 46939554092703274027' / 16788749077457941631266'
 1 33 5328 9 44 721692635 38808460072 3602531881619 76831353986725
 41' 29' / 87497' / 7' / 49' / 1068262128' / 2674315597' / 4558675152488' / 254684087530003'
 951213846313842872 2974775312302478056 19345266359058173376893 90
 - 6270966830143534407' / 46939554092703274027' / 8394374538728970815633' / 41'
 344169356087887803440953 1436263255 1838043410 394744275091
 - 12080227558997042529893247' / 4273048512' / 2674315597' / 4558675152488'
 158191141363203 742462682733660409 83648364826913769923 23257456421982357642683
 254684087530003' / 895852404306219201' / 46939554092703274027' / 16788749077457941631266'
 92 40417400489676061697711321 8053485039331361686595498 45463365149
 41' 4026742519665680843297749' / 29954147824091385134468907743' / 2279337576244'
 190100455450026 979013754608372006 15667755766692183543 1218620914691040833417 83
 254684087530003' / 2090322276714511469' / 46939554092703274027' / 16788749077457941631266' / 41'
 35049363884105736629394097 6547729822321193039819726121 89862443472274155403406723229
 12080227558997042529893247' / 29954147824091385134468907743' / 1149626899292365110980259252514
 24091854926152146240866710 5247708331548749191663214542
 - 12080227558997042529893247' / 29954147824091385134468907743'
 793523262706278805536663059653 574813449646182555490129626257 42620449536
 574813449646182555490129626257' / 60830856413069900919418180220552' / 2674315597'
 2134202592445 236846482290858 3919992750707499334 29644142573232875303
 2279337576244' / 254684087530003' / 6270966830143534407' / 46939554092703274027'
 8660837685195666884784 26 24608455779812808277183946 6141949283234357577061154946
 - 8394374538728970815633' / 41' / 12080227558997042529893247' / 29954147824091385134468907743'
 6080350005135119823047038049249 13999670211926684199972060799795
 1149626899292365110980259252514' / 15207714103267475229854545055138'
 15207714103267475229854545055138 354353341730579914210201912
 3247795764621051356347423554638603' / 29954147824091385134468907743'
 3791384674923686563332014067777 24015645431091793232987987148807
 - 574813449646182555490129626257' / 60830856413069900919418180220552'
 - 5107589383523005527919705348256419 / 3247795764621051356347423554638603,
 25982366116968410850779388437108824 / 581465575317655582137612143687699289,
 83314273600478385693 42526649259672846499945 96
 - 46939554092703274027' / 16788749077457941631266' / 41'
 143482898754361622770566503 34775751434894963149540152419
 12080227558997042529893247' / 29954147824091385134468907743'
 5273616250167997267852654446151 70670845105013502892073033901237
 - 1149626899292365110980259252514' / 60830856413069900919418180220552'
 - 1048845677827302909276441948599534 / 3247795764621051356347423554638603,
 1784108629203664747341511261626333437 / 193821858439218527379204047895899763,
 - 64607286146406175793068015965299921 / 97779610731284651689426353311155343897}}

RECONSTRUCCION DE LA SKYMATRIZ FACTORIZADA A PARTIR DEL VECTOR Sf

SymmSkyMatrixConvertToFull [Sf] ;

% // MatrixForm

$\frac{1}{64}$	0	$\frac{15}{32}$	0	0	0	0	0	0	0	0	0
0	$\frac{1}{87}$	$\frac{35}{87}$	0	0	$\frac{14}{29}$	$\frac{74}{87}$	0	0	0	0	0
15	35	1392	0	0	86448	39296	0	0	116928	52896	87497
32	87	87497	$\frac{1}{70}$	0	$\frac{13}{10}$	$\frac{47}{35}$	0	0	$\frac{9}{10}$	$\frac{9}{35}$	$\frac{9}{35}$
0	0	0	0	$\frac{1}{98}$	$\frac{23}{98}$	$\frac{43}{98}$	0	0	$\frac{33}{49}$	$\frac{33}{49}$	1
0	14	86448	13	23	21436765	29792027	0	0	2363513689	792564563	792564563
29	87497	10	98	4273048512	36678528	513499392	48268942848	0	2848699008	2136524256	604166708
0	74	39296	47	43	29792027	513499392	48268942848	0	489367893	604166708	604166708
0	87	87497	35	98	36678528	2674315597	2674315597	0	2674315597	2674315597	2674315597
0	0	0	0	0	0	48268942848	2674315597	40114733955	21928799477	38462054649	38462054649
0	0	0	0	0	0	2674315597	4558675152488	4558675152488	1139668788122	16295844385009	16295844385009
0	0	0	0	0	0	0	0	40114733955	4558675152488	231176704808268	16295844385009
0	0	116928	9	33	2363513689	489367893	4558675152488	254684087530003	254684087530003	254684087530003	254684087530003
0	0	87497	10	49	2848699008	2674315597	21928799477	231176704808268	59341392394490699	529131670528328	529131670528328
0	0	52896	9	1	792564563	604166708	1139668788122	254684087530003	6270966830143534407	895852404306219	895852404306219
0	0	87497	35	1	2136524256	2674315597	38462054649	162958443850098	529131670528328623	469395540927032	469395540927032
0	88	29792	23	4	85786189	6940662832	2279337576244	254684087530003	895852404306219201	156677557669218	156677557669218
0	87	87497	35	49	534131064	2674315597	2279337576244	237639862749610	775133374099208345	390793418892916	390793418892916
0	0	0	0	0	0	0	0	254684087530003	2090322276714511469	469395540927032	469395540927032
0	0	0	0	0	0	0	0	0	0	0	0
0	33	5328	9	44	721692635	3880846072	3602531881619	76831353986725	951213846313842872	2974775312302478	2974775312302478
0	29	87497	7	49	1068262128	2674315597	4558675152488	254684087530003	6270966830143534407	4693955409270327	4693955409270327
0	0	0	0	0	1436263255	1838043410	394744275091	158191141363203	742462682733660409	836483648269137	836483648269137
0	0	0	0	0	4273048512	2674315597	4558675152488	254684087530003	895852404306219201	469395540927032	469395540927032
0	0	0	0	0	0	0	45463365149	190100455450026	979013754608372006	156677557669218	156677557669218
0	0	0	0	0	0	0	2279337576244	254684087530003	2090322276714511469	4693955409270327	4693955409270327
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	42620449536	2134202592445	236846482290858	3919992750707499334	296441425732328	296441425732328
0	0	0	0	0	2674315597	2279337576244	254684087530003	254684087530003	6270966830143534407	469395540927032	469395540927032
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	833142736004783
0	0	0	0	0	0	0	0	0	0	0	469395540927032

DESPLAZAMIENTOS SOLUCION - OBTENIDOS DIRECTAMENTE A PARTIR DE LA FACTORIZACION DE LA SKYMATRIZ ORIGINAL

usfs = SymmSkyMatrixVectorSolve[Sf, f] ;

```
% // MatrixForm
```

```
177 469 036 497 283 534 295 600 253 643 063 709 601  
391 118 442 925 138 606 757 705 413 244 621 375 588  
740 665 163 366 557 024 200 617 821 562 440 313 683  
- 293 338 832 193 853 955 068 279 059 933 466 031 691  
25 814 838 011 723 797 134 764 373 398 607 132 999  
195 559 221 462 569 303 378 852 706 622 310 687 794  
15 299 088 365 319 004 473 171 215 892 871 008 025  
67 693 576 660 120 143 477 295 167 676 953 699 621  
1 192 612 823 390 409 646 946 407 485 690 441 909 187  
- 880 016 496 581 561 865 204 837 179 800 398 095 073  
1 874 515 660 178 882 575 195 596 799 911 490 894 973  
- 880 016 496 581 561 865 204 837 179 800 398 095 073  
52 535 144 995 098 469 039 333 614 867 433 010 981  
67 693 576 660 120 143 477 295 167 676 953 699 621  
3 636 606 581 050 833 678 273 739 053 882 016 454 015  
1 760 032 993 163 123 730 409 674 359 600 796 190 146  
279 101 598 604 553 510 172 086 821 784 836 553 412  
97 779 610 731 284 651 689 426 353 311 155 343 897  
410 326 363 723 670 360 677 424 484 489 687 109 432  
293 338 832 193 853 955 068 279 059 933 466 031 691  
913 122 417 935 023 085 270 226 018 742 006 463 743  
- 1 760 032 993 163 123 730 409 674 359 600 796 190 146  
79 375 880 605 599 003 088 335 666 104 160 180 647  
- 135 387 153 320 240 286 954 590 335 353 907 399 242  
528 580 979 005 673 839 636 928 227 862 707 913 677  
- 1 760 032 993 163 123 730 409 674 359 600 796 190 146  
2 292 926 012 883 628 044 490 412 782 976 144 029 115  
1 760 032 993 163 123 730 409 674 359 600 796 190 146  
316 547 195 588 739 767 417 569 072 365 028 930 327  
1 760 032 993 163 123 730 409 674 359 600 796 190 146  
1248 659 073 284 598 885 671 676 026 222 860 538 749  
- 1 760 032 993 163 123 730 409 674 359 600 796 190 146  
3 787 539 915 508 734 189 741 008 661 263 741 809 259  
880 016 496 581 561 865 204 837 179 800 398 095 073  
201 806 561 391 382 004 730 106 725 637 478 081 825  
- 135 387 153 320 240 286 954 590 335 353 907 399 242  
7 033 428 724 723 402 732 889 950 689 725 798 039 287  
- 1 760 032 993 163 123 730 409 674 359 600 796 190 146  
55 480 631 130 732 754 523 076 490 906 482 389 947  
293 338 832 193 853 955 068 279 059 933 466 031 691
```

02b- MATRICES QUE CONSTITUYEN LA FACTORIZACION DE LA SKYMATRIZ ORIGINAL

3 - FACTORIZACION PASO A PASO

■ MATRIZ D

□ MATRIZ D INVERSA - D1

```
D1 = SymmSkyMatrixConvertDiagonalToFull[sf];
```

```
(*//MatrixForm*)
```

□ MATRIZ Df

```
Df = Inverse[D1];
```

```
% // MatrixForm
```

```

{ 64 0 0 0 0 0 0 0 0 0 0 0
0 87 0 0 0 0 0 0 0 0 0 0
0 0  $\frac{87497}{1392}$  0 0 0 0 0 0 0 0 0 0
0 0 0 70 0 0 0 0 0 0 0 0
0 0 0 0 98 0 0 0 0 0 0 0
0 0 0 0 0 -  $\frac{4273048512}{21436765}$  0 0 0 0 0 0
0 0 0 0 0 0 -  $\frac{2674315597}{513499392}$  0 0 0 0 0 0
0 0 0 0 0 0 0  $\frac{4558675152488}{2674315597}$  0 0 0 0 0 0
0 0 0 0 0 0 0 0  $\frac{254684087530003}{4558675152488}$  0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 -  $\frac{6270966830143534407}{59341392394490699}$  0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 -  $\frac{4693955409270327402}{895852404306219201}$  0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
}

```

■ MATRIZ U

```
U = SymmSkyMatrixConvertUnitUpperTriangleToFull [Sf];
```

% // MatrixForm

1	0	$\frac{15}{32}$	0	0	0	0	0	0	0	0	0	0	0
0	1	$\frac{35}{87}$	0	0	$\frac{14}{29}$	$\frac{74}{87}$	0	0	0	0	0	$\frac{88}{87}$	0
0	0	1	0	0	$\frac{86448}{87497}$	$\frac{39296}{87497}$	0	0	$\frac{116928}{87497}$	$\frac{52896}{87497}$	-	$\frac{29792}{87497}$	0
0	0	0	1	0	$\frac{13}{10}$	$\frac{47}{35}$	0	0	$\frac{9}{10}$	$\frac{9}{35}$	0	$\frac{23}{35}$	0
0	0	0	0	1	$\frac{23}{98}$	$\frac{43}{98}$	0	0	$\frac{33}{49}$	$\frac{1}{1}$	0	$\frac{4}{49}$	0
0	0	0	0	0	1	$\frac{29792027}{36678528}$	0	0	$\frac{2363513689}{2848699008}$	$\frac{792564563}{2136524256}$	0	$\frac{85786189}{534131064}$	0
0	0	0	0	0	0	1	-	$\frac{48268942848}{2674315597}$	0	$\frac{2674315597}{604166708}$	0	$\frac{2674315597}{6940662832}$	0
0	0	0	0	0	0	0	1	$\frac{40114733955}{4558675152488}$	$\frac{21928799477}{1139668788122}$	$\frac{38462054649}{2279337576244}$	-	$\frac{323536837507}{2279337576244}$	0
0	0	0	0	0	0	0	0	1	$\frac{231176704808268}{254684087530003}$	$\frac{162958443850098}{254684087530003}$	0	$\frac{237639862749610}{254684087530003}$	0
0	0	0	0	0	0	0	0	0	1	$\frac{529131670528328623}{895852404306219201}$	-	$\frac{775133374099208345}{2090322276714511469}$	0
0	0	0	0	0	0	0	0	0	0	1	-	$\frac{39079341889291635567}{46939554092703274027}$	0
0	0	0	0	0	0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0

■ MATRIZ L

L = Transpose[U];

■ COMPROBACION DE LA FACTORIZACION DE LA SKYMATRIZ ORIGINAL

```
Kc = L.Df.U;
```

```
% // MatrixForm
```

```
(
64 0 30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 87 35 0 0 42 74 0 0 0 0 88 0 99 0 0 0 0 0 0 0
30 35 91 0 0 79 58 0 0 84 38 14 0 36 0 0 0 0 0 0 0
0 0 0 70 0 91 94 0 0 63 18 46 0 90 0 0 0 0 0 0 0
0 0 0 0 98 23 43 0 0 66 98 8 0 88 0 0 0 0 0 0 0
0 42 79 91 23 6 34 0 0 15 10 51 0 47 67 0 0 0 0 0 0
0 74 58 94 43 34 84 94 0 16 23 91 0 57 58 0 0 83 0 0
0 0 0 0 0 0 94 8 15 50 50 2 0 17 83 34 0 98 0 0
0 0 0 0 0 0 0 15 56 51 36 50 0 5 36 42 0 66 0 0
0 0 84 63 66 15 16 50 51 17 42 71 0 15 3 88 0 27 0 0
0 0 38 18 98 10 23 50 36 42 32 88 0 36 92 39 0 73 0 93
0 88 14 46 8 51 91 2 50 71 88 68 0 36 57 34 0 87 0 52
0 0 0 0 0 0 0 0 0 0 0 0 41 90 92 83 0 26 0 96
0 99 36 90 88 47 57 17 5 15 36 36 90 78 23 66 70 78 0 98
0 0 0 0 0 67 58 83 36 3 92 57 92 23 62 73 51 30 44 4
0 0 0 0 0 0 0 34 42 88 39 34 83 66 73 40 43 53 94 9
0 0 0 0 0 0 0 0 0 0 0 0 0 70 51 43 56 13 67 33
0 0 0 0 0 0 83 98 66 27 73 87 26 78 30 53 13 76 81 33
0 0 0 0 0 0 0 0 0 0 0 0 0 0 44 94 67 81 11 27
0 0 0 0 0 0 0 0 0 0 93 52 96 98 4 9 33 33 27 72
)
```

□ COMANDOS DIRECTOS DE OBTENCION DE LA SKYMATRIZ ORIGINAL A PARTIR DE LA SKYMATRIZ FACTORIZADA

```
So = SymmSkyMatrixLDinvUReconstruct [Sf];
```

```
SymmSkyMatrixConvertToFull [So];
```

```
% // MatrixForm
```

```
(
64 0 30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 87 35 0 0 42 74 0 0 0 0 88 0 99 0 0 0 0 0 0 0
30 35 91 0 0 79 58 0 0 84 38 14 0 36 0 0 0 0 0 0 0
0 0 0 70 0 91 94 0 0 63 18 46 0 90 0 0 0 0 0 0 0
0 0 0 0 98 23 43 0 0 66 98 8 0 88 0 0 0 0 0 0 0
0 42 79 91 23 6 34 0 0 15 10 51 0 47 67 0 0 0 0 0 0
0 74 58 94 43 34 84 94 0 16 23 91 0 57 58 0 0 83 0 0
0 0 0 0 0 0 94 8 15 50 50 2 0 17 83 34 0 98 0 0
0 0 0 0 0 0 0 15 56 51 36 50 0 5 36 42 0 66 0 0
0 0 84 63 66 15 16 50 51 17 42 71 0 15 3 88 0 27 0 0
0 0 38 18 98 10 23 50 36 42 32 88 0 36 92 39 0 73 0 93
0 88 14 46 8 51 91 2 50 71 88 68 0 36 57 34 0 87 0 52
0 0 0 0 0 0 0 0 0 0 0 0 41 90 92 83 0 26 0 96
0 99 36 90 88 47 57 17 5 15 36 36 90 78 23 66 70 78 0 98
0 0 0 0 0 67 58 83 36 3 92 57 92 23 62 73 51 30 44 4
0 0 0 0 0 0 0 34 42 88 39 34 83 66 73 40 43 53 94 9
0 0 0 0 0 0 0 0 0 0 0 0 0 70 51 43 56 13 67 33
0 0 0 0 0 0 83 98 66 27 73 87 26 78 30 53 13 76 81 33
0 0 0 0 0 0 0 0 0 0 0 0 0 0 44 94 67 81 11 27
0 0 0 0 0 0 0 0 0 0 93 52 96 98 4 9 33 33 27 72
)
```

02c - OBTENCION DE DESPLAZAMIENTOS SOLUCION

■ 02c- 2a FASE - 1a PARTE - SOLUCION INTERMEDIA

```
SolucionIntermedia = Inverse[L].f;
```

```
Xi = SolucionIntermedia;
```

■ 02c- 2a FASE - 2a PARTE - SOLUCION POSTERIOR

```
SolucionPosterior = Inverse[Df.U].Xi;
```

```
usrf = SolucionPosterior;
```

```
% // MatrixForm
```

```
177 469 036 497 283 534 295 600 253 643 063 709 601
391 118 442 925 138 606 757 705 413 244 621 375 588
 74 066 516 366 557 024 200 617 821 562 440 313 683
- 293 338 832 193 853 955 068 279 059 933 466 031 691
 25 814 838 011 723 797 134 764 373 398 607 132 999
195 559 221 462 569 303 378 852 706 622 310 687 794
15 299 088 365 319 004 473 171 215 892 871 008 025
 67 693 576 660 120 143 477 295 167 676 953 699 621
- 1192 612 823 390 409 646 946 407 485 690 441 909 187
 880 016 496 581 561 865 204 837 179 800 398 095 073
- 1874 515 660 178 882 575 195 596 799 911 490 894 973
 880 016 496 581 561 865 204 837 179 800 398 095 073
- 52 535 144 995 098 469 039 333 614 867 433 010 981
 67 693 576 660 120 143 477 295 167 676 953 699 621
3 636 606 581 050 833 678 273 739 053 882 016 454 015
1 760 032 993 163 123 730 409 674 359 600 796 190 146
279 101 598 604 553 510 172 086 821 784 836 553 412
 97 779 610 731 284 651 689 426 353 311 155 343 897
410 326 363 723 670 360 677 424 484 489 687 109 432
293 338 832 193 853 955 068 279 059 933 466 031 691
- 913 122 417 935 023 085 270 226 018 742 006 463 743
 1 760 032 993 163 123 730 409 674 359 600 796 190 146
- 793 75 880 605 599 003 088 335 666 104 160 180 647
- 135 387 153 320 240 286 954 590 335 353 907 399 242
528 580 979 005 673 839 636 928 227 862 707 913 677
- 1 760 032 993 163 123 730 409 674 359 600 796 190 146
2 292 926 012 883 628 044 490 412 782 976 144 029 115
1 760 032 993 163 123 730 409 674 359 600 796 190 146
316 547 195 588 739 767 417 569 072 365 028 930 327
1 760 032 993 163 123 730 409 674 359 600 796 190 146
1248 659 073 284 598 885 671 676 026 222 860 538 749
- 1 760 032 993 163 123 730 409 674 359 600 796 190 146
3 787 539 915 508 734 189 741 008 661 263 741 809 259
880 016 496 581 561 865 204 837 179 800 398 095 073
- 201 806 561 391 382 004 730 106 725 637 478 081 825
- 135 387 153 320 240 286 954 590 335 353 907 399 242
7 033 428 724 723 402 732 889 950 689 725 798 039 287
- 1 760 032 993 163 123 730 409 674 359 600 796 190 146
55 480 631 130 732 75 452 3 076 490 906 482 389 947
293 338 832 193 853 955 068 279 059 933 466 031 691
```

■ 02c- COMPROBACION - SOLUCIONES

```
SymmSkyMatrixVectorMultiply[S, usrif]
```

```
{33, 28, 30, 64, 3, 62, 57, 42, 99, 43, 14, 15, 42, 91, 61, 51, 30, 91, 70, 13}
```

```
f
```

```
{33, 28, 30, 64, 3, 62, 57, 42, 99, 43, 14, 15, 42, 91, 61, 51, 30, 91, 70, 13}
```

Ok