

## N O T I C E

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HOURLY AVERAGE VALUES OF SOLAR WIND PARAMETERS  
(FLOW RATE AND ION TEMPERATURE)  
ACCORDING TO DATA OF MEASUREMENTS OF THE RIEP-V PLASMA SPECTROMETER  
ON BOARD THE VENERA-9 AND VENERA-10 AUTOMATIC INTERPLANETARY STATIONS  
ON AN EARTH/VENUS FLIGHT TRAJECTORY AND IN ORBIT AROUND VENUS  
DURING THE PERIOD JUNE 1975-APRIL 1976

O. L. Vaysberg, A. V. D'yachkov, V. N. Smirnov, K. B. Tsyarkin,  
and R. A. Isaeva

Translation of "Srednechasovye znacheniya parametrov solnechnogo  
vetra (skorost' potoka i temperatura ionov) po dannym izmereniy  
spektrometra plazmy RIEP-V na bortu avtomaticheskikh mezhpla-  
netnykh stantsiy "Venera-9" i "Venera-10" na trasse pereleta  
Zemlya/Venera i na orbite sputnika Venery za period iyun'  
1975g. - aprel' 1976g.", Academy of Sciences USSR, Institute of  
Space Research, Moscow, Report Pr-494, 1979, pp. 1-50

(NASA-TM-76213) HOURLY AVERAGE VALUES OF  
SOLAR WIND PARAMETERS (FLOW RATE AND ION  
TEMPERATURES) ACCORDING TO DATA OF  
MEASUREMENTS OF THE VENERA-9 AND VENERA-10  
AUTOMATIC (National Aeronautics and Space

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
WASHINGTON, D.C. 20546  
JUNE 1980

## STANDARD TITLE PAGE

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| 16. Abstract<br><b>Measurements of solar wind parameters were carried out using data gathered by the "Venera-9" and "Venera-10" space stations, using an RIEP-V plasma spectrometer. The measurements were carried out during the earth to Venus trajectory and in orbit around Venus.</b> |   |   |                                 |
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HOURLY AVERAGE VALUES OF SOLAR WIND PARAMETERS  
(FLOW RATE AND ION TEMPERATURE)  
ACCORDING TO DATA OF MEASUREMENTS OF THE RIEP-V PLASMA SPECTROMETER  
ON BOARD THE VENERA-9 AND VENERA-10 AUTOMATIC INTERPLANETARY STATIONS  
ON AN EARTH/VENUS FLIGHT TRAJECTORY AND IN ORBIT AROUND VENUS  
DURING THE PERIOD JUNE 1975-APRIL 1976

O. L. Vaysberg, A. V. D'yachkov, V. N. Smirnov, K. B. Tsyarkin,  
and R. A. Isaeva

Explanations for Data on Solar Wind Parameters

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The measurements of the spectral characteristics of the ionic component of plasma were carried out on board the "Venera-9" and "Venera-10" automatic interplanetary stations, using the RIEP-V plasma spectrometer. In order to obtain the parameters of the solar wind ionic flow, the readings of 4 cylindrical electrostatic analyzers with channel electron multipliers, in the capacity of detectors, were utilized. The axes of the fields of vision of two of these electrostatic analyzers were directed along the axis of the automatic interplanetary station, oriented towards the sun, while the other two were turned in one plane at angles of  $+15^\circ$  and  $-15^\circ$ . The full hemisphere of the angular diagram of each analyzer was  $\sim 5^\circ$ , the energetic resolution was  $\sim 6\%$ , and the geometric energy factor was  $2 \cdot 10^{-3} \text{ cm}^2 \text{ ave. kev}$ . Each analyzer covered an energetic range of  $\sim 10$  in eight energetic intervals.

On the flight trajectory towards Venus, the instrument usually operated in a mode for obtaining the energetic and angular distribution of the ions within 1 minute, with an interval between the measurement frames of 10 minutes, i.e., 6 spectra were recorded in 1 hour. The information was recorded on an on-board recorder. The measurements were carried out in lengthy recording sequences, but the measurements were not continuous. The obtained spectral distributions were processed, in order to obtain the velocity and temperature of the protons. Since the

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\*Numbers in the margin indicate pagination in the foreign text.

spectral distributions were recorded in one plane, the concentration of the solar wind was not determined. The obtained parameters were averaged for an interval of 1 hour. The greater portion of the measurements was obtained on the "Venera-10" automatic interplanetary station. The measurements on the "Venera-9" were also utilized during the preparation of the tables and graphs, in order to fill the gaps in the information obtained from the "Venera-10" station. The given data are a result of the first stage of processing, and subsequent processing may introduce slight corrections into them. /2

The processing data are presented in the figures, as well as in tabular form. Indicated in the table for each date, in the course of which observations were carried out, are: the hour interval (universal time), and the hourly average solar wind velocity in kilometers per second. The asterisk marks the magnitudes obtained from measurements on "Venera-9", and the remaining data are from "Venera-10".

| 75. 6.10. 7 | 75. 6.10. 7 | 75. 6.10. 7 | 75. 6.11. 7 | 75. 6.11. 7 |
|-------------|-------------|-------------|-------------|-------------|
| 11 373      | 11 354      | 17 354      | 10 654      | 12 659      |
| 10 389      | 10 357      | 16 357      | 11 650      | 13 658      |
| 15 351      | 15 341      | 15 341      | 15 651      | 12 651      |
| 17 358      | 15 347      | 15 347      | 16 654      | 13 652      |
|             |             |             | 10 652      | 19 671      |
|             |             |             | 11 645      | 11 652      |
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|             |             |             | 17 655      | 10 638      |
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|             |             |             | 11 646      | 10 645      |
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|             |             |             | 18 668      | 15 651      |
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| 75. 6.19. v | 75. 6.20 | 75. 6.21. v | 75. 6.22. v | 75. 6.23. v |
|-------------|----------|-------------|-------------|-------------|
| 12 620      | 13 565   | 9 509       | 15 454      | 10 406      |
| 13 633      | 20 616   | 13 494      | 12 449      | 7 404       |
| 17 647      | 13 570   | 14 473      | 16 438      | 7 393       |
| 13 641      | 11 560   | 15 461      | 17 424      | 7 393       |
| 10 621      | 11 563   | 8 469       | 14 434      | 8 392       |
|             |          |             |             |             |
| 13 639      | 10 551   | 7 490       | 8 418       | 5 359*      |
|             | 10 558   |             | 21 431      | 12 362*     |
| 18 663*     | 12 557   | 7 475       | 18 438      | 11 375      |
| 12 624*     |          |             | 10 428      | 8 371       |
| 14 673      |          |             | 11 407      |             |
| 11 603      |          | 10 502      | 12 408      |             |
| 13 617      | 10 521   | 13 487      | 13 421      |             |
| 10 619      | 9 536    | 14 477      | 14 404      | 10 366*     |
| 12 615      | 8 532    | 15 482      | 15 407      | 11 378      |
| 16 594      | 8 511    | 16 491      | 16 404      | 16 362      |
| 17 566      | 12 499   | 17 479      | 17 416      | 17 380      |
| 18 556      | 18 499   | 18 466      | 18 417      | 18 382      |
| 19 571      | 9 506    | 19 481      | 19 412      | 19 382      |
| 20 569      | 7 522    | 20 477      | 20 412      | 20 380      |
| 21 575      | 7 510    | 21 477      | 21 411      | 21 372      |
| 22 544      | 7 485    | 22 452      | 22 410      | 22 377      |
| 23 591      | 6 481    | 23 455      | 23 404      | 23 374      |
| 24 563      | 6 482    | 24 457      | 24 399      | 24 372      |

| 75. 6.24. y |     | 75. 6.25. y |      | 75. 6.26. y |      | 75. 6.27. y |   | 75. 6.28. y |     |
|-------------|-----|-------------|------|-------------|------|-------------|---|-------------|-----|
| T           | y   | T           | y    | T           | y    | T           | y | T           | y   |
| 1           | 366 |             |      | 7           | 403  |             |   | 1           | 520 |
| 2           | 366 |             |      | 6           | 386  |             |   | 2           | 516 |
| 3           | 366 |             |      |             |      |             |   | 3           | 517 |
| 4           | 484 | 5           | 354* | 9           | 411  |             |   | 4           |     |
| 5           | 484 |             |      | 11          | 386  |             |   | 5           |     |
| 6           | 484 |             |      | 11          | 392  |             |   | 6           |     |
| 7           | 484 |             |      | 11          | 401  |             |   | 7           |     |
| 8           | 484 | 19          | 369  | 11          | 436  |             |   | 8           | 536 |
| 9           | 484 | 9           | 363  | 18          |      |             |   | 9           | 522 |
| 10          | 484 |             |      |             |      |             |   |             |     |
| 11          | 484 | 11          | 393  | 17          | 368* |             |   | 10          |     |
| 12          | 484 | 11          | 383  | 41          | 349* |             |   | 11          |     |
| 13          | 484 | 11          | 383  |             |      |             |   | 12          | 662 |
| 14          | 484 | 11          | 395  |             |      |             |   | 16          | 619 |
| 15          | 484 | 8           | 395  |             |      |             |   | 27          | 642 |
| 16          | 484 | 8           | 424* |             |      |             |   | 7           | 578 |
| 17          | 484 | 13          | 394  | 13          | 386* |             |   | 16          | 598 |
| 18          | 484 | 15          | 392  | 24          | 366* |             |   | 9           | 555 |
| 19          | 484 | 9           | 400  | 11          | 401* |             |   | 9           | 553 |
| 20          | 484 |             |      |             |      |             |   | 5           | 549 |
| 21          | 484 | 13          | 384  |             |      |             |   |             |     |
| 22          | 484 | 6           | 382  |             |      |             |   | 9           | 543 |
| 23          | 484 | 6           | 388  | 10          | 404* |             |   |             |     |
| 24          | 484 | 9           | 397  | 11          | 391* |             |   | 10          | 543 |

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| 75. 6.29. y |     | 75. 6.30. y |     | 75. 7. 1. y |      | 75. 7. 2. y |   | 75. 7. 3. y |     |
|-------------|-----|-------------|-----|-------------|------|-------------|---|-------------|-----|
| T           | y   | T           | y   | T           | y    | T           | y | T           | y   |
| 5           | 550 |             |     | 14          | 459  |             |   | 10          | 521 |
| 30          | 641 | 6           | 535 | 11          | 454  |             |   | 7           | 523 |
| 20          | 634 | 20          | 485 | 10          | 433  |             |   | 7           | 525 |
| 19          | 650 | 7           | 464 | 9           | 445  |             |   | 8           | 542 |
| 39          | 630 | 11          | 450 | 35          | 395* |             |   |             |     |
|             |     | 7           | 482 | 10          | 419  |             |   |             |     |
| 23          | 569 | 15          | 473 | 10          | 421  |             |   |             |     |
|             |     |             |     | 11          | 434  |             |   |             |     |
|             |     |             |     | 8           | 436  |             |   |             |     |
| 7           | 537 | 6           | 497 |             |      |             |   |             |     |
| 7           | 526 | 14          | 482 |             |      |             |   |             |     |
|             |     | 12          | 472 |             |      |             |   |             |     |
|             |     | 6           | 469 |             |      |             |   |             |     |
| 11          | 537 | 6           | 464 |             |      |             |   |             |     |
| 13          | 520 | 7           | 450 |             |      |             |   |             |     |
| 13          | 519 | 7           | 427 |             |      |             |   |             |     |
| 12          | 517 | 12          | 432 |             |      |             |   |             |     |
| 8           | 520 | 10          | 433 |             |      |             |   |             |     |
|             |     | 7           | 425 |             |      |             |   |             |     |
|             |     |             | 459 |             |      |             |   |             |     |
| 77          |     |             |     | 85          | 533* |             |   |             |     |
| 507         |     | 7           | 434 | 7           | 552* |             |   |             |     |

| 75. 7. 4. Y |     | 75. 7. 5. Y |     | 75. 7. 6. Y |     | 75. 7. 7. Y |     | 75. 7. 8. Y |     |
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| 24          | 444 | 444         | 444 | 444         | 444 | 444         | 444 | 444         | 444 |
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| 75. 7. 9. Y |     | 75. 7. 10. Y |     | 75. 7. 11. Y |     | 75. 7. 12. Y |     | 75. 7. 13. Y |     |
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| 23          | 443 | 540          | 494 | 515          | 455 | 6            | 515 | 6            | 455 |
| 22          | 454 | 538          | 507 | 510          | 447 | 8            | 510 | 8            | 447 |
| 21          | 438 | 530          | 503 | 491          | 467 | 5            | 491 | 5            | 467 |
| 20          | 448 |              |     | 493          |     |              | 507 |              |     |
| 19          | 446 |              |     | 475          |     |              |     |              |     |
| 18          | 499 |              |     | 536          |     |              |     |              |     |
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| 75. 9.16. # |     | 75. 9.17. # |     | 75. 9.18. # |     | 75. 9.19. # |     | 75. 9.20. # |     |
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| T           | Y   | T           | Y   | T           | Y   | T           | Y   | T           | Y   |
| 1           |     | 7           | 379 | 20          | 430 |             |     | 16          | 507 |
| 2           |     | 8           | 382 | 16          | 476 |             |     | 17          | 510 |
| 3           | 413 | 13          | 406 | 19          | 489 |             |     | 18          | 513 |
| 4           |     |             |     | 34          | 511 |             |     | 19          | 498 |
| 5           |     |             |     | 38          | 516 |             |     |             |     |
| 6           | 418 | 13          | 367 | 47          | 507 |             |     |             |     |
| 7           |     |             |     | 34          | 522 |             |     |             |     |
| 8           |     |             |     | 21          | 554 |             |     |             |     |
| 9           |     |             |     | 26          | 589 | 13          | 586 |             |     |
| 10          | 387 |             |     | 32          | 609 | 16          | 574 |             |     |
| 11          |     |             |     | 21          | 567 | 10          | 587 |             |     |
| 12          |     |             |     | 19          | 501 | 10          | 589 |             |     |
| 13          |     | 16          | 300 | 16          | 574 | 10          | 594 |             |     |
| 14          |     | 21          | 368 | 18          | 566 | 10          | 599 |             |     |
| 15          |     | 10          | 341 | 16          | 649 | 10          | 599 |             |     |
| 16          |     | 11          | 340 |             |     | 10          | 576 |             |     |
| 17          |     | 15          | 348 |             |     | 10          | 509 |             |     |
| 18          |     | 19          | 394 |             |     | 10          | 518 |             |     |
| 19          |     | 27          | 387 |             |     | 10          | 530 |             |     |
| 20          |     | 23          | 398 |             |     | 10          | 516 |             |     |
| 21          | 413 | 27          | 420 |             |     | 10          | 509 |             |     |
| 22          |     | 32          | 445 |             |     | 10          | 518 |             |     |
| 23          |     |             |     |             |     | 10          | 506 |             |     |
| 24          |     |             |     |             |     | 10          | 506 |             |     |

| 75. 9.21. # |   | 75. 9.22. # |     | 75. 9.23. # |   | 75. 9.24. # |   | 75. 9.25. # |     |
|-------------|---|-------------|-----|-------------|---|-------------|---|-------------|-----|
| T           | Y | T           | Y   | T           | Y | T           | Y | T           | Y   |
| 1           |   | 17          | 451 |             |   |             |   | 10          | 372 |
| 2           |   |             |     |             |   |             |   | 11          | 370 |
| 3           |   |             |     |             |   |             |   | 10          | 372 |
| 4           |   |             |     |             |   |             |   |             |     |
| 5           |   |             |     |             |   |             |   |             |     |
| 6           |   |             |     |             |   |             |   |             |     |
| 7           |   |             |     |             |   |             |   |             |     |
| 8           |   |             |     |             |   |             |   |             |     |
| 9           |   |             |     |             |   |             |   |             |     |
| 10          |   |             |     |             |   |             |   |             |     |
| 11          |   |             |     |             |   |             |   |             |     |
| 12          |   |             |     |             |   |             |   |             |     |
| 13          |   |             |     |             |   |             |   |             |     |
| 14          |   |             |     |             |   |             |   |             |     |
| 15          |   |             |     |             |   |             |   |             |     |
| 16          |   |             |     |             |   |             |   |             |     |
| 17          |   |             |     |             |   |             |   |             |     |
| 18          |   |             |     |             |   |             |   |             |     |
| 19          |   |             |     |             |   |             |   |             |     |
| 20          |   |             |     |             |   |             |   |             |     |
| 21          |   |             |     |             |   |             |   |             |     |
| 22          |   |             |     |             |   |             |   |             |     |
| 23          |   |             |     |             |   |             |   |             |     |
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| 75. 9.27. M |     | 75. 9.28. M |     | 75. 9.29. M |     | 75. 9.30. M |     | 75. 10. 01. M |     |
|-------------|-----|-------------|-----|-------------|-----|-------------|-----|---------------|-----|
| T           | V   | T           | V   | T           | V   | T           | V   | T             | V   |
| 115         | 356 | 10          | 351 | 10          | 396 | 11          | 313 | 11            | 415 |
| 116         | 362 | 11          | 361 | 11          | 410 | 12          | 312 | 12            | 412 |
| 6           | 329 | 12          | 363 | 12          | 421 | 13          | 314 | 13            | 417 |
| 5           | 324 | 13          | 374 | 13          | 426 | 14          | 316 | 14            | 423 |
|             |     | 14          | 373 | 14          | 439 | 15          | 364 | 15            | 402 |
|             |     | 15          | 370 | 15          | 444 | 16          | 369 | 16            | 379 |
|             |     | 16          | 370 | 16          | 450 | 17          | 318 | 17            | 390 |
|             |     | 17          | 370 | 17          | 459 | 18          | 361 | 18            | 437 |
|             |     | 18          | 370 | 18          | 460 | 19          | 366 | 19            | 375 |
|             |     | 19          | 370 | 19          | 461 | 20          | 369 | 20            | 378 |
|             |     | 20          | 370 | 20          | 461 | 21          | 318 | 21            | 373 |
|             |     | 21          | 370 | 21          | 461 | 22          | 361 | 22            | 363 |
|             |     | 22          | 370 | 22          | 461 | 23          | 366 | 23            | 375 |
|             |     | 23          | 370 | 23          | 461 | 24          | 369 | 24            | 377 |
|             |     | 24          | 370 | 24          | 461 |             |     |               | 367 |
|             |     | 25          | 370 | 25          | 461 |             |     |               | 368 |
|             |     | 26          | 370 | 26          | 461 |             |     |               | 368 |
|             |     | 27          | 370 | 27          | 461 |             |     |               | 369 |
|             |     | 28          | 370 | 28          | 461 |             |     |               | 355 |
|             |     | 29          | 370 | 29          | 461 |             |     |               | 363 |
|             |     | 30          | 370 | 30          | 461 |             |     |               |     |

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| 75. 10. 2. |     | 75. 10. 3. |     | 75. 10. 4. |     | 75. 10. 5. |     | 75. 10. 6. |     | 75. 10. 7. |     |
|------------|-----|------------|-----|------------|-----|------------|-----|------------|-----|------------|-----|
| T          | V   | T          | V   | T          | V   | T          | V   | T          | V   | T          | V   |
| 115        | 362 | 13         | 319 | 11         | 307 | 17         | 439 | 12         | 317 | 18         | 506 |
| 116        | 368 | 14         | 309 | 12         | 307 | 18         | 448 | 13         | 317 | 19         | 478 |
| 6          | 329 | 15         | 307 | 13         | 307 | 19         | 448 | 14         | 317 | 20         | 478 |
| 5          | 324 | 16         | 307 | 14         | 307 | 20         | 448 | 15         | 317 | 21         | 475 |
|            |     | 17         | 307 | 15         | 307 | 21         | 448 | 16         | 317 | 22         | 474 |
|            |     | 18         | 307 | 16         | 307 | 22         | 448 | 17         | 317 | 23         | 473 |
|            |     | 19         | 307 | 17         | 307 | 23         | 448 | 18         | 317 | 24         | 473 |
|            |     | 20         | 307 | 18         | 307 | 24         | 448 | 19         | 317 | 25         | 473 |
|            |     | 21         | 307 | 19         | 307 | 25         | 448 | 20         | 317 | 26         | 473 |
|            |     | 22         | 307 | 20         | 307 | 26         | 448 | 21         | 317 | 27         | 473 |
|            |     | 23         | 307 | 21         | 307 | 27         | 448 | 22         | 317 | 28         | 473 |
|            |     | 24         | 307 | 22         | 307 | 28         | 448 | 23         | 317 | 29         | 473 |
|            |     | 25         | 307 | 23         | 307 | 29         | 448 | 24         | 317 | 30         | 473 |
|            |     | 26         | 307 | 24         | 307 | 30         | 448 | 25         | 317 |            |     |
|            |     | 27         | 307 | 25         | 307 |            |     | 26         | 317 |            |     |
|            |     | 28         | 307 | 26         | 307 |            |     | 27         | 317 |            |     |
|            |     | 29         | 307 | 27         | 307 |            |     | 28         | 317 |            |     |
|            |     | 30         | 307 | 28         | 307 |            |     | 29         | 317 |            |     |





75.II.7.  
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75.II.8.  
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75.II.10.  
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75.II.11.  
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75.II.12.  
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75.II.16.  
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75.II.17.  
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75.II.18.  
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75.II.19.  
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75.II.20.  
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75.II.1. V  
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75.II.2. V  
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75.II.3. V  
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75.II.5. V  
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75.II.6. V  
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75.II.21. V  
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75.II.22. V  
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75.II.23. V  
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75.II.24. V  
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75.II.25. V  
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75.12.9.  
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75.12.10.  
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75.12.11.  
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75.12.15.  
 T v  
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75.12.16.  
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75.12.17.  
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75.12.18.  
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 6 403  
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 15 466  
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75.12.24.  
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75.12.25.  
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75.12.27.  
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76. 2. 24. 12 568

21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

76. 2. 24. 12 568

76. 2. 25. 12 568

21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

76. 2. 26. 12 568

21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

76. 2. 27. 12 568

21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

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76. 3. 4. T Y

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

76. 3. 5. T Y

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

76. 3. 6. T Y

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

76. 3. 7. T Y

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

76. 3. 8. T Y

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76. 3.20. y  
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76. 3.21. y  
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76. 3.22. y  
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76. 3.23. y  
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76. 3.25. y  
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76. 3.27. y  
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76. 3.28. y  
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76. 3.29. y  
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76. 3.30. y  
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76. 3.31. y  
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76. 4. 17.  
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76. 4. 13.  
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76. 4. 10.  
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