

Éléments orbitaux des planètes pour le **1er janvier 2022** et **1er juillet 2022** à **0h TD**

L → Longitude moyenne de la planète ; a → Demi grand axe de l'orbite ;  
 e → Excentricité de l'orbite ; i → Inclinaison sur le plan de l'écliptique ;  
 Ω → Longitude du nœud ascendant ; π → Longitude du périhélie

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| 1er janvier 2022 à 0h TD [245 9580,5 JJ] | 1er juillet 2022 à 0h TD [245 9761,5 JJ] |
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Mercure

|                            |                            |
|----------------------------|----------------------------|
| L = 16, 546 815 491 04 °   | L = 37, 267 064 678 16 °   |
| a = 0, 387 098 310 UA      | a = 0, 387 098 310 UA      |
| e = 0, 205 636 238 168 36  | e = 0, 205 636 339 232 92  |
| i = 7, 005 385 854 556 3 ° | i = 7, 005 394 841 148 6 ° |
| Ω = 48, 591 862 918 617 °  | Ω = 48, 597 741 473 467 °  |
| π = 77, 798 558 371 392 °  | π = 77, 806 272 163 032 °  |

Vénus

|                              |                              |
|------------------------------|------------------------------|
| L = 96, 206 682 655 08 °     | L = 26, 199 224 295 84 °     |
| a = 0, 723 329 820 UA        | a = 0, 723 329 820 UA        |
| e = 0, 006 761 416 452 938 1 | e = 0, 006 761 179 969 653 7 |
| i = 3, 394 882 771 333 5 °   | i = 3, 394 887 743 233 2 °   |
| Ω = 76, 878 186 190 122 °    | Ω = 76, 882 652 597 749 °    |
| π = 131, 872 141 188 43 °    | π = 131, 879 087 570 03 °    |

Terre

|                            |                            |
|----------------------------|----------------------------|
| L = 100, 635 833 811 96 °  | L = 279, 038 006 659 44 °  |
| a = 1, 000 001 018 UA      | a = 1, 000 001 018 UA      |
| e = 0, 016 699 375 729 211 | e = 0, 016 699 167 135 172 |
| i = 0 °                    | i = 0 °                    |
| π = 103, 315 668 164 8 °   | π = 104, 063 446 062 52 °  |

(janvier 2022)

(juillet 2022)

## Mars

|  |  |
|--|--|
| $L = 246,606\,233\,391\,36^\circ$      | $L = 341,463\,100\,795\,56^\circ$      |
| $a = 1,523\,679\,342\text{ UA}$        | $a = 1,523\,679\,342\text{ UA}$        |
| $e = 0,093\,420\,552\,576\,298$        | $e = 0,093\,421\,000\,792\,753$        |
| $i = 1,849\,594\,375\,509\,5^\circ$    | $i = 1,849\,591\,424\,882\,9^\circ$    |
| $\Omega = 49,727\,954\,875\,727^\circ$ | $\Omega = 49,731\,781\,040\,622^\circ$ |
| $\pi = 336,465\,270\,406\,58^\circ$    | $\pi = 336,474\,394\,020\,4^\circ$     |

## Jupiter

|  |  |
|--|--|
| $L = 342,338\,140\,26\,41^\circ$       | $L = 357,384\,569\,291\,46^\circ$      |
| $a = 5,202\,603\,251\,086\text{ UA}$   | $a = 5,202\,603\,252\,034\text{ UA}$   |
| $e = 0,048\,533\,816\,662\,838$        | $E = 0,048\,534\,624\,485\,037$        |
| $i = 1,302\,057\,995\,522\,7^\circ$    | $i = 1,302\,030\,767\,83\,61^\circ$    |
| $\Omega = 100,689\,041\,544\,76^\circ$ | $\Omega = 100,694\,101\,897\,64^\circ$ |
| $\pi = 14,686\,036\,568\,795^\circ$    | $\pi = 14,694\,030\,267\,306^\circ$    |

## Saturne

|   |   |
|---|---|
| $L = 319,249\,904\,215\,15^\circ$       | $L = 325,313\,026\,60\,313^\circ$       |
| $a = 9,554\,908\,721\,613\,6\text{ UA}$ | $a = 9,554\,908\,711\,022\,6\text{ UA}$ |
| $e = 0,055\,471\,847\,865\,963$         | $e = 0,055\,470\,128\,666\,423$         |
| $i = 2,488\,056\,301\,730\,4^\circ$     | $i = 2,488\,037\,753\,524\,5^\circ$     |
| $\Omega = 113,858\,456\,442\,87^\circ$  | $\Omega = 113,862\,802\,591\,03^\circ$  |
| $\pi = 93,489\,305\,074\,925^\circ$     | $\pi = 93,499\,038\,366\,390\,2^\circ$  |

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Uranus

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| $L = 48,625\,112\,051\,028^\circ$      | $L = 50,755\,308\,317\,424^\circ$      |
| $a = 19,218\,446\,053\,863\text{ UA}$  | $a = 19,218\,446\,053\,682\text{ UA}$  |
| $e = 0,046\,375\,219\,361\,316$        | $e = 0,046\,375\,084\,284\,733$        |
| $i = 0,773\,369\,181\,536\,38^\circ$   | $i = 0,773\,373\,101\,680\,32^\circ$   |
| $\Omega = 74,120\,670\,143\,166^\circ$ | $\Omega = 74,123\,255\,564\,258^\circ$ |
| $\pi = 173,332\,304\,745\,12^\circ$    | $\pi = 173,339\,670\,983\,33^\circ$    |

Neptune

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|--|--|
| $L = 352,723\,007\,971\,08^\circ$      | $L = 353,812\,642\,573\,05^\circ$        |
| $a = 30,110\,386\,832\,447\text{ UA}$  | $a = 30,110\,386\,831\,625\text{ UA}$    |
| $e = 0,009\,457\,077\,259\,467\,6$     | $e = 0,009\,457\,107\,156\,022\,2^\circ$ |
| $i = 1,767\,904\,853\,615\,5^\circ$    | $i = 1,767\,858\,711\,146\,6^\circ$      |
| $\Omega = 132,026\,554\,411\,99^\circ$ | $\Omega = 132,032\,016\,966\,12^\circ$   |
| $\pi = 48,434\,079\,656\,269^\circ$    | $\pi = 48,441\,148\,526\,244^\circ$      |