
 **The distance of the earth from the sun at the apogee**  (\*远日点具体时间\*)

 Result at 12:00 am July 4



1.017 au

1.017 au

 **The distance from the sun at the perihelion of the earth**  (\*近日点距离\*)

 Input information

$$C[1] \in \mathbb{Z} \ \&\& \left( \theta = 2. \left( -2.67757 + 6.28319 C[1] \right) \mid \mid \theta = 2. \left( 0.464025 + 6.28319 C[1] \right) \right)$$

 **Time of perihelion and apogee of the earth**  (\*近,远日点时间\*)

 Results

next periapsis time	January 2, 2021
largest distance from Sun	$1.52097701 \times 10^8$ km (kilometers) (from Sun)


 **Time of apogee of the earth**  (\*远日点日期\*)

**Earth** PLANET [ *next apoapsis time* ]

 Day: Sat 4 Jul 2020

(\*地球能量守恒验证 (近日点) \*)


$$\text{Simplify} \left[ \frac{1}{2} \times 5.965 \times 10^{24} \times (30.287 \times 10^3)^2 + \frac{6.67 \times 10^{-11} \times 5.965 \times 10^{24} \times 1.988435 \times 10^{30}}{1.47098074 \times 10^8 \times 10^3} \right]$$

 化简

$$8.1141 \times 10^{33}$$

(\*地球能量守恒验证 (远日点) \*)


$$\text{Simplify} \left[ \frac{1}{2} \times 5.965 \times 10^{24} \times (29.291 \times 10^3)^2 + \frac{6.67 \times 10^{-11} \times 5.965 \times 10^{24} \times 1.988435 \times 10^{30}}{1.52097701 \times 10^8 \times 10^3} \right]$$

 化简

$$7.76033 \times 10^{33}$$

(\*地球的能量 (取平均值) \*)

$$\text{Simplify} \left[ \frac{8.114100705719573 \times 10^{33} + 7.760330919242632 \times 10^{33}}{2} \right]$$

 化简

$$7.93722 \times 10^{33}$$