```
(*用z表示x*)Reduce[z == x * Sin[7.25 ° × Pi/180 °], x]
```
约化 正弦

$$x == 0. + 7.92399\, z$$

```
(*用z表示y*)
Reduce[(z/Sin[7.25 °×Pi/180 °] * Sin[7.25 ° × Pi/180 °])^2 + (z/Sin[7.25 °×Pi/180 °] × Cos[7.25 ° × Pi/180 °])^2/(149 576 999.826 * 10^3)^2 +
  (y)^2/(149 597 887.5 * 10^3)^2 == 1, y]
```
约化

Reduce: Reduce was unable to solve the system with inexact coefficients. The answer was obtained by solving a corresponding exact system and numericizing the result.

```
y == -7.925101542489476` Sqrt[3.5632086235470365`*^20 - 1.` z^2] ||
 y == 7.925101542489476` Sqrt[3.5632086235470365`*^20 - 1.` z^2]
```

```
(*y==+-Sqrt[(149597887.5*10^3)^2-(149597887.5*10^3)^2×z^2/(149576999.826*10^3)^2-(149597887.5*10^3)^2×z^2/((149576999.826*10^3)^2×(Tan[7.25°×Pi/180°])^2)] *)
```

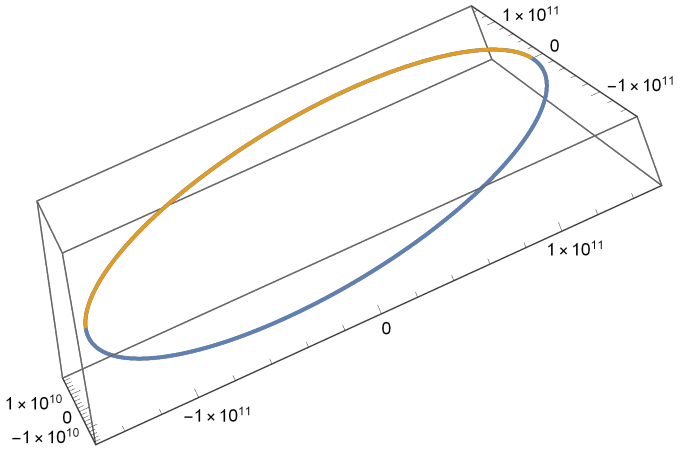
```
(*空间椭圆方程式*)
(*
  f(x)==z/Sin[7.25°×Pi/180°]
  f(y)==+-Sqrt[(149597887.5*10^3)^2-(149597887.5*10^3)^2×z^2/(149576999.826*10^3)^2-(149597887.5*10^3)^2×z^2/((149576999.826*10^3)^2×(Tan[7.25°×Pi/180°])^2)]
  f(z)==z
*)
```

```
ParametricPlot3D[
```
绘制三维参数图

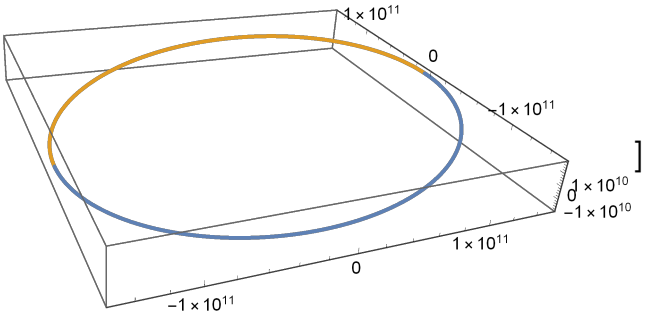
$$\left\{\left\{\frac{z}{\text{Sin}\left[7.25^\circ \times \frac{\text{Pi}}{180^\circ}\right]}, -\sqrt{\left(149\,597\,887.5 * 10^3\right)^2 - \frac{\left(149\,597\,887.5 * 10^3\right)^2 \times z^2}{\left(149\,576\,999.826 * 10^3\right)^2} - \frac{\left(149\,597\,887.5 * 10^3\right)^2 \times z^2}{\left(149\,576\,999.826 * 10^3\right)^2 \times \left(\text{Tan}\left[7.25^\circ \times \frac{\text{Pi}}{180^\circ}\right]\right)^2}}\right\}, z\right\},$$

$$\left\{\frac{z}{\text{Sin}\left[7.25^\circ \times \frac{\text{Pi}}{180^\circ}\right]}, \sqrt{\left(149\,597\,887.5 * 10^3\right)^2 - \frac{\left(149\,597\,887.5 * 10^3\right)^2 \times z^2}{\left(149\,576\,999.826 * 10^3\right)^2} - \frac{\left(149\,597\,887.5 * 10^3\right)^2 \times z^2}{\left(149\,576\,999.826 * 10^3\right)^2 \times \left(\text{Tan}\left[7.25^\circ \times \frac{\text{Pi}}{180^\circ}\right]\right)^2}}\right\}\right\},$$

```
{z, -2.5 * 10^11, 2.5 * 10^11}, PlotPoints → 15000]
```
绘图点



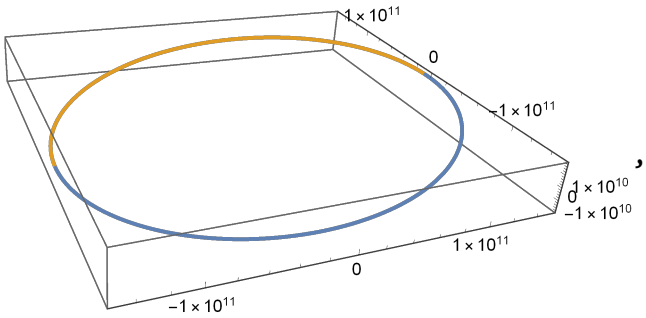

```
Export["Earth.ply",
```
导出




```
]
```

Earth.ply

```
Export["L:\\研究性学习/Earth.ply",
```
导出




```
, "PLY"]
```

L:\研究性学习/Earth.ply