

trabajo dom 1 2024

```
In [1]: from math import * # tengo que importar las funciones matematicas
```

```
In [31]: kgauss=0.01720209895 # gauss k
Mstar=0.08 # masa estrella en masas solares
a=0.01 # semieje en uas
Tstar=2500
Tsol=5780
Rsol=0.00466 # radio sol en uas
Rstar=0.1*Rsol
A=0.3
```

```
In [32]: # movimiento medio en radianes por dia
ene = kgauss*sqrt(Mstar/a**3)
print("n = ",ene, "rad/dia")
```

n = 4.865488327274795 rad/dia

```
In [33]: periodo = 2*pi/ene
print("periodo = ",periodo, "dias")
```

periodo = 1.29137814840856 dias

```
In [34]: Teq=Tstar*sqrt(Rstar/a)*((1-A)/2)**0.25
print("Teq = ",Teq, "K")
```

Teq = 415.09736650908343 K

```
In [37]: LsLsol=(Rstar/Rsol)**2*(Tstar/Tsol)**4
```

```
In [38]: print("Lstar/Lsol = ",LsLsol)
```

Lstar/Lsol = 0.0003499843953361453

```
In [ ]:
```