

```
In[42]:= T = 9333;
σ = 5.6704 * 10-5;
Lsun = 3.846 * 1033;
L = 5 * 109 Lsun;
cmtoau =  $\frac{1}{1.496 * 10^{13}}$ 
```

```
Out[46]= 6.68449 × 10-14
```

```
In[47]:= R =  $\sqrt{\frac{L}{4 \pi \sigma T^4}}$  cmtoau
```

```
Out[47]= 126.068
```

```
Solve[L == 4 π R2 σ T4, R]
```