Heat Transfer Questions & Answers

Question by Student 201428239

Professor, I have a question about Assignment 3 of Question #5 (c). I don't know the answer about (c). So I don't know if my answer is correct. I got 450K for (c). Is it correct??

There's a reason why this is not given. Think about the problem more.

Question by Student 201428239

Professor, I have a question about Assignment 3 of Q5. Should I calculate T of SUN?? I already calcualted with respect to radiation H-T and I got 381.4K.... I think this is not true in r eal case. Is there anything that I missed??

Explain to us how you can calculate the sun's temperature.

Question by Student 201428239

I calculated the T of sun like this.

$q''_{sun} = \sigma T_{sun}{}^4$

And I continued like this.

$q_{gen} = \sigma A (T_{Bo}{}^4 - T_{sun}{}^4)$

A is equal to $4\pi r_3{}^2$ Is there anything that I missed?

How can you find the temperature of the sun? I can't follow you. I see no equation $T_{sun} = \dots$

Question by Student 201312147

Professor, I have a question assignment#3 Q5(a). To solve this problem, we have to need T of Sun?? or can we solve to using $q''_{rad} = q''{}_{gen}$??

You don't have to find T_{sun} if it's not needed to find the answer to the problem.

Question by Student 201527136

Professor, I have question about assignment#5 Q1. In class, You said that power and viscous dissipation are same. But the answers of power and viscous

dissipation are different. Why they are different?

You should be able to explain this on your own.

Question by Student 201427135

Professor, I have a question.
A5Q2, the question is "What is the rate of heat transfer from the bearing, and how much power is needed to rotate the journal?"
Does the rate of heat transfer from the bearing mean rate of heat transfer at journal ? or at bearing?
If I took at journal, it's perfectly same with answer but at bearing, it's not. But they said there is no heat transfer into journal. So I'm really wondering. Thank you.

I don't understand your question. As written in the problem statement there is no heat transfer to the journal.