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## PROBLEM 8-14N QUESTION

### Radially Averaged Fuel Temperature And Stored Energy In Solid And Annular Pellet

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Consider a solid pellet of radius  $b$  and an annular pellet of inside radius  $a$ , and outside radius  $b$ , each operating at the same linear power rate,  $q'$ .

Define  $\Delta T(r) \equiv T(r) - T_b$   
and  $\overline{\Delta T(r)} \equiv \overline{T(r)} - T_b$ .

- Find across each pellet, the value of  $\overline{\Delta T} / \Delta T$ . Use the subscript “s” for solid and the subscript “a” for annular.
- What is the ratio of the stored energy in the solid to the annular pellet?