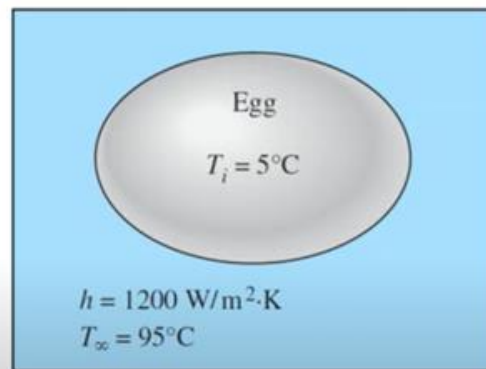


Transient Heat Transfer Demonstration Problem



$r = 2.5 \text{ cm}$
 $k = 0.627 \text{ W/m}\cdot\text{K}$
 $\rho = 993.05 \text{ kg/m}^3$
 $c_p = 4178.5 \text{ J/kg}\cdot\text{K}$
 $T_i = 5^\circ\text{C}$
 $h = 1200 \text{ W/m}^2\cdot\text{K}$

The time at which the center of the egg reaches 70°C ?

A screenshot of a data table from a software interface. The table has two columns: "Time (s)" and "Temperature (degC)". The data rows show a progression of time and temperature. The row for 860.00 seconds is highlighted, showing a temperature of 70.042 degrees Celsius. A mouse cursor is pointing at the 860.00 value in the Time column.

Time (s)	Temperature (degC)
845.00	69.135
850.00	69.441
855.00	69.743
860.00	70.042
865.00	70.336
870.00	70.627
875.00	70.913
880.00	71.196

Reference: COMSOL Conduction heat transfer - Boiling Eggs,
<https://www.youtube.com/watch?v=HZtdfpbAz9E>