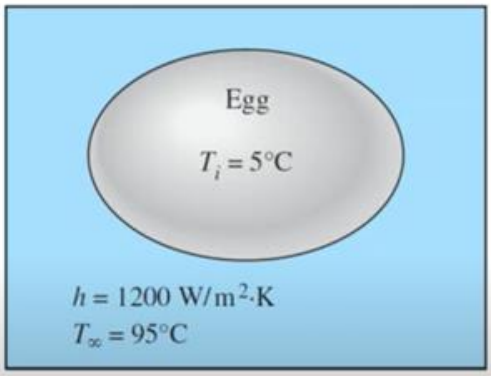
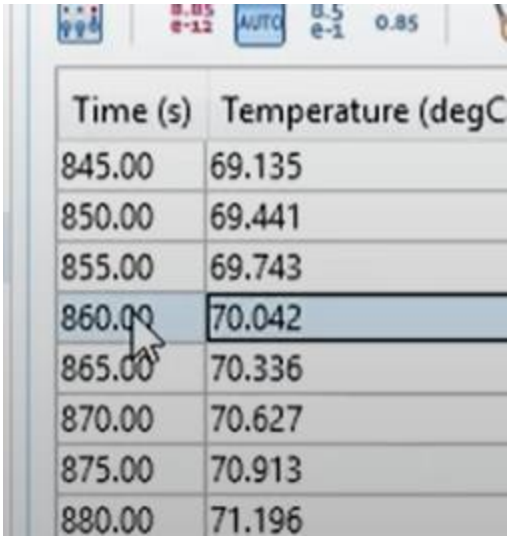
Transient Heat Transfer Demonstration Problem



r = 2.5 cm
k = 0.627 W/m·K
ρ = 993.05 kg/m³
c_p = 4178.5 J/kg·K
T_i = 5 °C
h = 1200 W/m² K

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



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