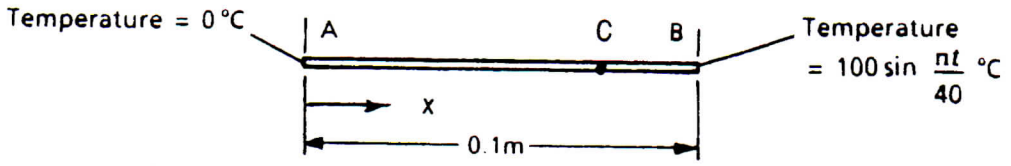
NAFEMS	ONE DIMENSIONAL TRANSIENT HEAT TRANSFER	Test No T3	DATE / ISSUE 15 - 6 - 90/2

ORIGIN	NAFEMS report BMTTA(S) & 'BENCHMARK' JAN, 1989 p23
ANALYSIS TYPE	Transient heat conduction

GEOMETRY



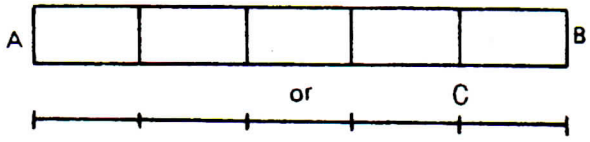
Uniform cross section

LOADING	Zero internal heat generation
BOUNDARY CONDITIONS	At time t = 0, All temperature = 0 °C At time t > 0, At A, temperature = 0 °C At B, temperature = 100 sin °C No heat flux perpendicular to AB
MATERIAL PROPERTIES	Conductivity = 35.0 W/m° C Specific heat = 440.5J/kg° C Density = 7200kg/m³
ELEMENT TYPES	One or two-dimensional heat transfer elements

MESHES

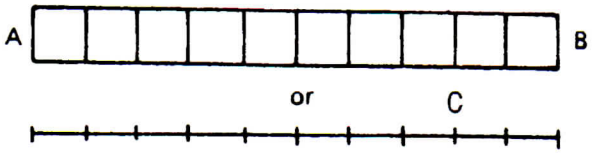
Coarse:

Uniform mesh of 5, 4-noded elements along length



Fine:

Uniform mesh of 10, 8-noded elements along length



OUTPUT	Material temperature at point C, x = 0.08m, time t = 32 secs	TARGET 36.60°C