

1. Equation:

$$\frac{\partial^2 T}{\partial x^2} = 0$$

2. Initial conditions:

- a. Wall temperature 373  $K$ ,
- b. Ambient temperature 278  $K$ .

3. Boundary conditions:

- a. Dirichlet boundary condition,
- b. Fourier boundary condition.

4. Physics parameters:

- a. Density =  $8960 \frac{kg}{m^3}$ ,
- b. Specific heat =  $384.4 \frac{J}{KgK}$ ,
- c. Thermal conductivity =  $401 \frac{W}{mK}$ ,
- d. Convection heat transfer coefficient =  $\frac{W}{m^2K}$ .

5. Steps:

- a. Time step 10  $s$ ,
- b. Length step 0.05  $m$ .