

Heat Transfer

Steady heat transfer with the energy balance method

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Notation for one-dimension problems

- A **1D plane wall** is defined as being infinitely long (i.e. heat transfer only occurs in one direction)
- It extends from $x = 0$ to $x = L$
- We discretise into M nodes from $m = 0$ to $m = M$
- Distance between nodes is Δx
- We form a volume element around each node which naturally also has width Δx

