WEEK 1

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- A short summary about the conductive heat transfer.

  - Heat, was defined as a type of energy that can be transferred from one system to another as a result of temperature difference.

  - A thermodynamic analysis, a system in a balanced state is when related to the amount of heat transfer when switching from one to the other.

  - Science interested in finding the speeds of such an energy transfer **heat transfer**.

  - The transfer of energy as heat is always oriented from high-temperature environments to low-temperature environments. Heat transfer stops when the two environments reach the same temperature.

  - Heat can be transferred in three different ways:

  Conduction.

  Convection.

  Radiation.

  Conduction. result of inter-particle interactions as a substance with higher energ higher than adjacent particles energy is the transfer of energy to those.

- Solving the same exercise with L= 0.4 m, A= 20 m2, Delta T= 25, and k=0.78 W/m K using both simple method and using the resistance concept.

  $Q = kA (T1 – T2) / L = (0.78x20x25) / 0.4 = 975$ W

  $R = L / Ka = 0.4 / (0.78 \times 20) = 0.02564°$ C /W

  $Q = (T1 – T2) / R = 25 / 0.02564 = 975.04$ W