

Please show your work and draw a box around your answer to receive full credit.

- 1) Construct the conductance matrices for the elements shown in Figure 1. Assemble the matrices to obtain the global conduction matrix.

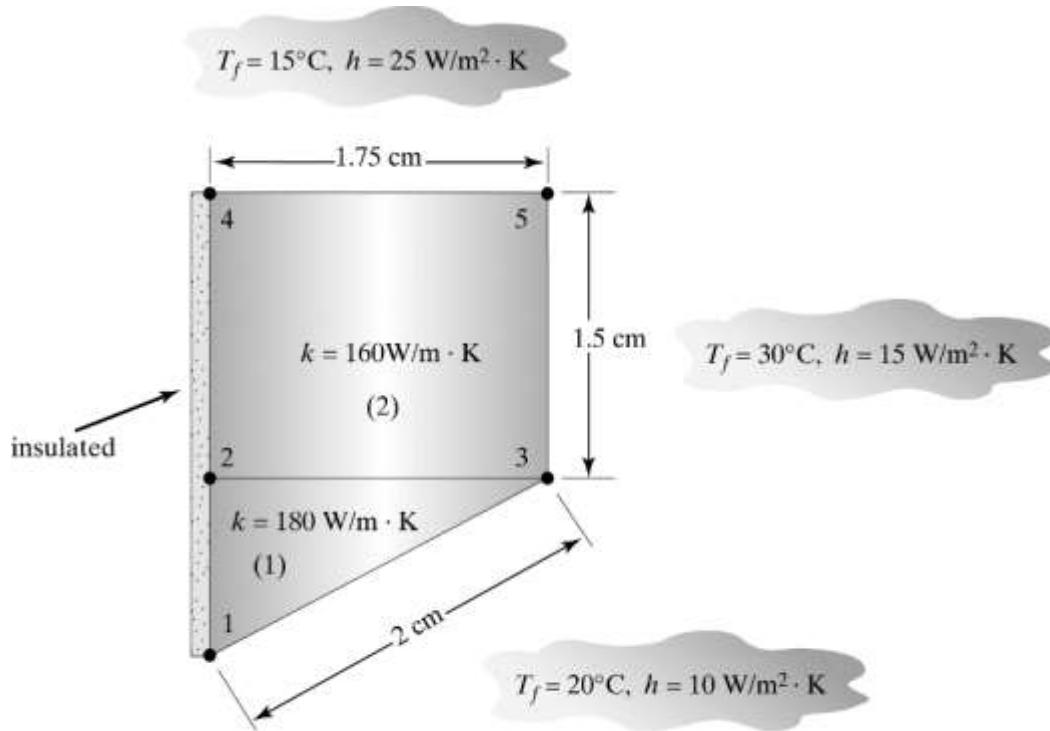


Figure 1.

- 2) Construct the load matrix for each element in Figure 1. Assemble the load matrices to construct the global load matrix.
- 3) What is the temperature at the midpoint of element 2?