



Figure 7.3.2 Heat transfer in a composite wall.

Box 7.3.4 Input for heat transfer in a composite wall (Example 7.3.2).

Example 7.3.2: Heat transfer in a composite wall

```

1 0 0          MODEL, NTYPE, ITEM
1 3           IELEM, NEM
0 0           ICONT, NPRNT
4            NNM
1 2 0.02      NOD(1,J), GLX(1)
70.0 0.0      AX0, AX1
0.0 0.0      BX0, BX1
0.0 0.0      CX0, CX1
0.0 0.0 0.0  FX0, FX1, FX2
} Data for
} Element 1

2 3 0.025     NOD(2,J), GLX(2)
40.0 0.0      AX0, AX1
0.0 0.0      BX0, BX1
0.0 0.0      CX0, CX1
0.0 0.0 0.0  FX0, FX1, FX2
} Data for
} Element 2

3 4 0.04      NOD(2,J), GLX(3)
20.0 0.0      AX0, AX1
0.0 0.0      BX0, BX1
0.0 0.0      CX0, CX1
0.0 0.0 0.0  FX0, FX1, FX2
} Data for
} Element 3

1            NSPV
1 1 200.0     ISPV(1,1), ISPV(1,2), VSPV(1)
0            NSSV
1            NNBC
4 1 10.0 50.0 INBC(1,1), INBC(1,2), VNBC(1), UREF(1)
0            NMPC

```

OUTPUT from program FEM1D by J. N. REDDY

SOLUTION (values of PVs) at the NODES:

0.20000E+03 0.19958E+03 0.19867E+03 0.19576E+03