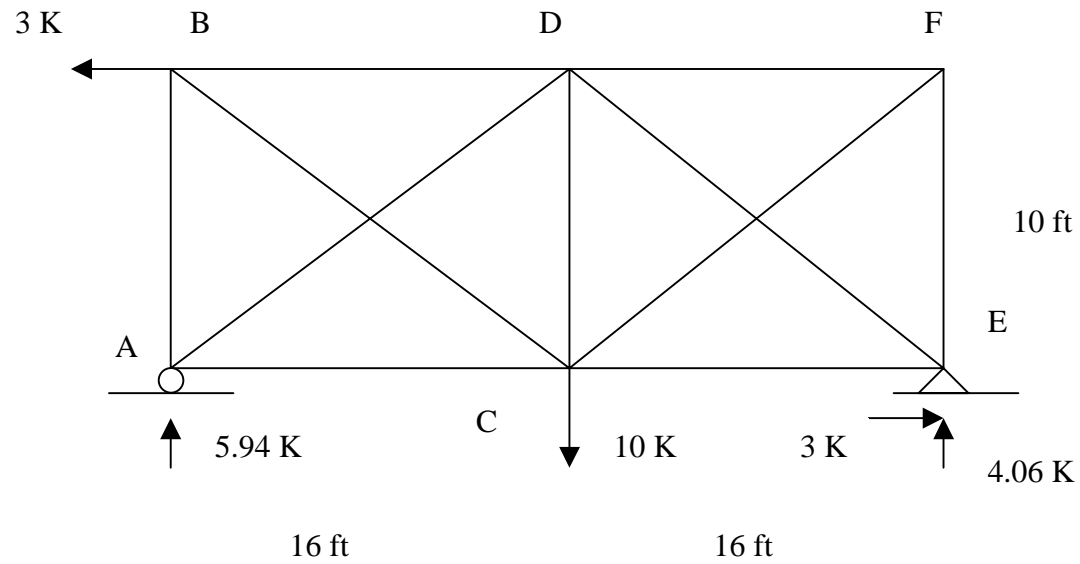


Homework #3 – Truss problem with multiple redundants, temperature & imperfection

Given the following truss, find the final forces:

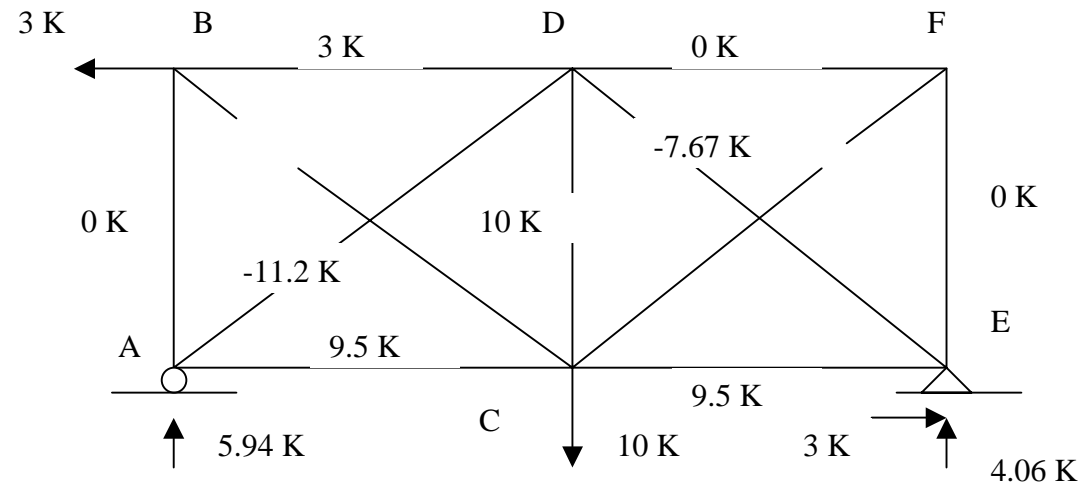


Members bd has + 20 °F temperature increase
 df has + 25 °F temperature increase
 cf is 1" too long

All diagonals: $A = 5 \text{ in}^2$
 Other members $A = 2.8 \text{ in}^2$

Remove 2 redundants (BC & CF):

Case 0 _ real loads



Case 1 – Redundant #1, unit load

Case 2 – Redundant 2 = unit force

