Chapter 10
Problem 26

Handwork

Determine the force in each member of the truss. The cross-sectional area at each member is indicated in the figure. Assume the members are pin connected at their ends.

\[ F = 2.9 \text{ kips} \]

\[ A = 0.05 \text{ in}^2 \]

\[ B = 0.02 \text{ in}^2 \]

\[ C = 0.03 \text{ in}^2 \]

\[ D = 0.04 \text{ in}^2 \]

\[ E = 0.05 \text{ in}^2 \]

\[ F = 0.06 \text{ in}^2 \]

\[ G = 0.07 \text{ in}^2 \]

\[ H = 0.08 \text{ in}^2 \]

\[ I = 0.09 \text{ in}^2 \]

\[ J = 0.10 \text{ in}^2 \]

\[ K = 0.11 \text{ in}^2 \]

\[ L = 0.12 \text{ in}^2 \]

\[ M = 0.13 \text{ in}^2 \]

\[ N = 0.14 \text{ in}^2 \]

\[ O = 0.15 \text{ in}^2 \]

\[ P = 0.16 \text{ in}^2 \]

\[ Q = 0.17 \text{ in}^2 \]

\[ R = 0.18 \text{ in}^2 \]

\[ S = 0.19 \text{ in}^2 \]

\[ T = 0.20 \text{ in}^2 \]

\[ U = 0.21 \text{ in}^2 \]

\[ V = 0.22 \text{ in}^2 \]

\[ W = 0.23 \text{ in}^2 \]

\[ X = 0.24 \text{ in}^2 \]

\[ Y = 0.25 \text{ in}^2 \]

\[ Z = 0.26 \text{ in}^2 \]

\[ AA = 0.27 \text{ in}^2 \]

\[ BB = 0.28 \text{ in}^2 \]

\[ CC = 0.29 \text{ in}^2 \]

\[ DD = 0.30 \text{ in}^2 \]

\[ EE = 0.31 \text{ in}^2 \]

\[ FF = 0.32 \text{ in}^2 \]

\[ GG = 0.33 \text{ in}^2 \]

\[ HH = 0.34 \text{ in}^2 \]

\[ II = 0.35 \text{ in}^2 \]

\[ JJ = 0.36 \text{ in}^2 \]

\[ KK = 0.37 \text{ in}^2 \]

\[ LL = 0.38 \text{ in}^2 \]

\[ MM = 0.39 \text{ in}^2 \]

\[ NN = 0.40 \text{ in}^2 \]

\[ OO = 0.41 \text{ in}^2 \]

\[ PP = 0.42 \text{ in}^2 \]

\[ QQ = 0.43 \text{ in}^2 \]

\[ RR = 0.44 \text{ in}^2 \]

\[ SS = 0.45 \text{ in}^2 \]

\[ TT = 0.46 \text{ in}^2 \]

\[ UU = 0.47 \text{ in}^2 \]

\[VV = 0.48 \text{ in}^2 \]

\[ WW = 0.49 \text{ in}^2 \]

\[ XX = 0.50 \text{ in}^2 \]

\[ YY = 0.51 \text{ in}^2 \]

\[ ZZ = 0.52 \text{ in}^2 \]

\[ AAA = 0.53 \text{ in}^2 \]

\[ BBB = 0.54 \text{ in}^2 \]

\[ CCC = 0.55 \text{ in}^2 \]

\[ DDD = 0.56 \text{ in}^2 \]

\[ EEE = 0.57 \text{ in}^2 \]

\[ FFF = 0.58 \text{ in}^2 \]

\[ GGG = 0.59 \text{ in}^2 \]

\[ HHH = 0.60 \text{ in}^2 \]

\[ III = 0.61 \text{ in}^2 \]

\[ JJJ = 0.62 \text{ in}^2 \]

\[ KKK = 0.63 \text{ in}^2 \]

\[ LLL = 0.64 \text{ in}^2 \]

\[ MMM = 0.65 \text{ in}^2 \]

\[ NNN = 0.66 \text{ in}^2 \]

\[ OOO = 0.67 \text{ in}^2 \]

\[ PPP = 0.68 \text{ in}^2 \]

\[ QQQ = 0.69 \text{ in}^2 \]

\[ RRR = 0.70 \text{ in}^2 \]

\[ SSS = 0.71 \text{ in}^2 \]

\[ TTT = 0.72 \text{ in}^2 \]

\[ UUU = 0.73 \text{ in}^2 \]

\[ VVV = 0.74 \text{ in}^2 \]

\[ WWW = 0.75 \text{ in}^2 \]

\[ XXX = 0.76 \text{ in}^2 \]

\[ YYY = 0.77 \text{ in}^2 \]

\[ ZZZ = 0.78 \text{ in}^2 \]

\[ AAAA = 0.79 \text{ in}^2 \]

\[ BBBB = 0.80 \text{ in}^2 \]

\[ CCCC = 0.81 \text{ in}^2 \]

\[ DDDD = 0.82 \text{ in}^2 \]

\[ EEEE = 0.83 \text{ in}^2 \]

\[ FFFF = 0.84 \text{ in}^2 \]

\[ GGGG = 0.85 \text{ in}^2 \]

\[ HHHH = 0.86 \text{ in}^2 \]

\[ IIII = 0.87 \text{ in}^2 \]

\[ JJJJ = 0.88 \text{ in}^2 \]

\[ KKKK = 0.89 \text{ in}^2 \]

\[ LLLL = 0.90 \text{ in}^2 \]

\[ MMMM = 0.91 \text{ in}^2 \]

\[ NNNN = 0.92 \text{ in}^2 \]

\[ OOOO = 0.93 \text{ in}^2 \]

\[ PPPP = 0.94 \text{ in}^2 \]

\[ QQQQ = 0.95 \text{ in}^2 \]

\[ RRRR = 0.96 \text{ in}^2 \]

\[ SSSS = 0.97 \text{ in}^2 \]

\[ TTTT = 0.98 \text{ in}^2 \]

\[ UUUU = 0.99 \text{ in}^2 \]

\[ VVVV = 1.00 \text{ in}^2 \]
Robot Module