

$$\begin{array}{lcl}
 T_1 + T_2 - 2T_3 + T_4 + 3T_5 - T_6 = 4 & \text{---} & (1) \\
 2T_1 - T_2 + T_3 + 2T_4 + T_5 - 3T_6 = 20 & \text{---} & (2) \\
 T_1 + 3T_2 - 3T_3 - T_4 + 2T_5 + T_6 = -15 & \text{---} & (3) \\
 5T_1 + 2T_2 - T_3 - T_4 + 2T_5 + T_6 = -3 & \text{---} & (4) \\
 3T_1 - T_2 + 2T_3 + 3T_4 + T_5 + 3T_6 = 16 & \text{---} & (5) \\
 4T_1 + 3T_2 + T_3 - 6T_4 - 3T_5 - 2T_6 = -27 & \text{---} & (6)
 \end{array}$$

Pivoting

$$\begin{array}{lcl}
 5T_1 + 2T_2 - T_3 - T_4 + 2T_5 + T_6 = -3 & \text{---} & (7) \\
 4T_1 + 3T_2 + T_3 - 6T_4 - 3T_5 - 2T_6 = -27 & \text{---} & (8) \\
 3T_1 - T_2 + 2T_3 + 3T_4 + T_5 + 3T_6 = 16 & \text{---} & (9) \\
 2T_1 - T_2 + T_3 + 2T_4 + T_5 - 3T_6 = 20 & \text{---} & (10) \\
 T_1 + 3T_2 - 3T_3 - T_4 + 2T_5 + T_6 = -15 & \text{---} & (11) \\
 T_1 + T_2 - 2T_3 + T_4 + 3T_5 - T_6 = 4 & \text{---} & (12)
 \end{array}$$

$$\text{eqn 7} \times \frac{4}{5} : 4T_1 + 1.6T_2 - 0.8T_3 - 0.8T_4 + 1.6T_5 + 0.8T_6 = -2.4 \quad \text{---} (13)$$

$$\text{eqn 7} \times \frac{3}{5} : 3T_1 + 1.2T_2 - 0.6T_3 - 0.6T_4 - 0.6T_5 + 0.6T_6 = -1.8 \quad \text{---} (14)$$

$$\text{eqn 10} \times \frac{2}{5} : 2T_1 + 0.8T_2 - 0.4T_3 - 0.4T_4 + 0.8T_5 + 0.4T_6 = -1.2 \quad \text{---} (15)$$

$$\text{eqn 11} \times \frac{1}{5} : T_1 + 0.4T_2 - 0.2T_3 - 0.2T_4 + 0.4T_5 + 0.2T_6 = -0.6 \quad \text{---} (16)$$

$$\text{eqn 12} \times \frac{1}{5} : T_1 + 0.4T_2 - 0.2T_3 - 0.2T_4 + 0.4T_5 + 0.2T_6 = -0.6 \quad \text{---} (17)$$

Subtract respective equations

$$\begin{array}{lcl}
 5T_1 + 2T_2 - T_3 - T_4 + 2T_5 + T_6 = -3 & & \\
 0 + 1.4T_2 + 1.8T_3 - 5.2T_4 - 4.6T_5 - 2.8T_6 = -29.4 & \text{---} & (18) \\
 0 - 2.2T_2 + 2.6T_3 + 3.6T_4 + 2.2T_5 + 2.4T_6 = 17.8 & \text{---} & (19) \\
 0 - 1.8T_2 + 1.4T_3 + 2.4T_4 + 0.2T_5 - 3.4T_6 = 21.2 & \text{---} & (20) \\
 0 + 2.6T_2 - 2.8T_3 - 0.8T_4 + 1.6T_5 + 0.8T_6 = -14.4 & \text{---} & (21) \\
 0 + 0.6T_2 - 1.8T_3 + 1.2T_4 + 2.6T_5 - 1.2T_6 = 4.6 & \text{---} & (22)
 \end{array}$$

$$\begin{aligned} \text{eqn (18)} \quad -2.2/1.4: & \quad 0 - 2.2T_2 - 2.81T_3 + 8.17T_4 + 7.23T_5 + 4.4T_6 = 46.2 \\ \text{eqn (18)} \quad -1.8/1.4: & \quad 0 - 1.8T_2 - 2.31T_3 + 6.69T_4 + 5.91T_5 + 3.6T_6 = 37.8 \\ \text{eqn (18)} \quad 2.6/1.4: & \quad 0 + 2.6T_2 + 3.34T_3 - 9.66T_4 - 8.54T_5 - 5.2T_6 = -54.6 \\ \text{eqn (18)} \quad 0.6/1.4: & \quad 0 + 0.6T_2 + 0.77T_3 - 2.23T_4 - 1.97T_5 - 1.2T_6 = -12.6 \end{aligned}$$

$$\begin{aligned} 5T_1 + 2T_2 - T_3 - T_4 + 2T_5 + T_6 &= -3 \\ 0 + 1.4T_2 + 1.8T_3 - 5.2T_4 - 4.6T_5 - 2.8T_6 &= -29.4 \\ 0 + 0 + 5.4T_3 - 4.57T_4 - 5.02T_5 - 2.00T_6 &= -28.4 & - (23) \\ 0 + 0 + 3.7T_3 - 4.29T_4 - 5.71T_5 - 7T_6 &= -16.6 & - (24) \\ 0 + 0 + 6.14T_3 + 8.86T_4 + 10.14T_5 + 6T_6 &= 40.2 & - (25) \\ 0 + 0 - 2.57T_3 + 3.43T_4 + 4.57T_5 - 1T_6 &= 17.2 & - (26) \end{aligned}$$

$$\begin{aligned} \text{eqn (23)} \times \frac{3.7}{5.41}: & \quad 0 + 0 + 3.70T_3 - 3.93T_4 - 3.43T_5 - 1.37T_6 = -19.42 \\ \text{eqn (23)} \times \frac{-6.14}{5.41}: & \quad 0 + 0 - 6.14T_3 + 5.19T_4 + 5.70T_5 + 2.27T_6 = 32.23 \\ \text{eqn (23)} \times \frac{-2.57}{5.41}: & \quad 0 + 0 - 2.57T_3 + 2.17T_4 + 2.39T_5 + 0.95T_6 = 13.49 \end{aligned}$$

$$\begin{aligned} 5T_1 + 2T_2 - T_3 - T_4 + 2T_5 + T_6 &= -3 \\ 0 + 1.4T_2 + 1.8T_3 - 5.2T_4 - 4.6T_5 - 2.8T_6 &= -29.4 \\ 0 + 0 + 5.4T_3 - 4.57T_4 - 5.02T_5 - 2.00T_6 &= -28.4 \\ 0 + 0 + 0 - 1.16T_4 - 2.28T_5 - 5.63T_6 &= 2.82 & - (27) \\ 0 + 0 + 0 + 3.67T_4 + 4.44T_5 + 3.73T_6 &= 7.97 & - (28) \\ 0 + 0 + 0 + 1.26T_4 + 2.18T_5 - 0.95T_6 &= 3.71 & - (29) \end{aligned}$$

$$\begin{aligned} \text{eqn (27)} \quad 3.67/1.16: & \quad 0 + 0 + 0 + 3.67T_4 + 7.21T_5 + 17.81T_6 = 8.92 \\ \text{eqn (27)} \quad 1.26/1.16: & \quad 0 + 0 + 0 + 1.26T_4 + 2.48T_5 + 6.12T_6 = -3.06 \end{aligned}$$

$$\begin{aligned} 5T_1 + 2T_2 - T_3 - T_4 + 2T_5 + T_6 &= -3 \\ 0 + 1.4T_2 + 1.8T_3 - 5.2T_4 - 4.6T_5 - 2.8T_6 &= -29.4 \\ 0 + 0 + 5.4T_3 - 4.57T_4 - 5.02T_5 - 2.00T_6 &= -28.4 \\ 0 + 0 + 0 - 1.16T_4 - 2.28T_5 - 5.63T_6 &= 2.82 \\ 0 + 0 + 0 - 2.77T_5 - 14.08T_6 &= -0.95 & - (30) \\ 0 + 0 + 0 + 0 - 0.3T_5 - 7.07T_6 &= 6.77 & - (31) \end{aligned}$$

$$\text{eqn (30)} \times \frac{-0.3}{-2.77} \quad 0 + 0 + 0 + 0 - 0.3T_5 - 1.53T_6 = -0.10$$

$$\begin{array}{l} 5T_1 + 2T_2 - T_3 - T_4 + 2T_5 + T_6 = -3 \\ 0 + 1.4T_2 + 1.8T_3 - 5.2T_4 - 4.6T_5 - 2.8T_6 = -29.4 \\ 0 + 0 + 5.41T_3 - 4.57T_4 - 5.02T_5 - 2.00T_6 = -28.4 \\ 0 + 0 + 0 - 1.16T_4 - 2.28T_5 - 5.63T_6 = 2.82 \\ 0 + 0 + 0 + 0 - 2.77T_5 - 14.08T_6 = -0.95 \\ 0 + 0 + 0 + 0 + 0 - 5.54T_6 = 6.87 \end{array}$$

$$T_6 = 6.87 / -5.54 = -1.24$$

$$T_5 = (14.08(-1.24) - 0.95) / -2.77 = 6.65$$

$$T_4 = \frac{2.28(6.65) + 5.63(-1.24) + 2.82}{-1.16} = -9.48$$

$$T_3 = \frac{4.57(-9.48) + 5.02(6.65) + 2(-1.24) - 28.4}{5.41} = -7.55$$

$$T_2 = \frac{-1.8(-7.55) + 5.2(-9.48) + 4.6(6.65) + 2.8(-1.24) - 29.4}{1.4} = -27.13$$

$$T_2 = -27.13$$

$$T_1 = \frac{-2(-27.13) + (-7.55) + (-9.48) - 2(6.65) - (-1.24) - 3}{5} = 4.43$$

$$T_1 = 4.43$$