Pgs 422,423, Homework problems 7.8, 7.9, and 7.10: The stress resultants listed in the problems are incorrect. Corrected problem statements appear below:

7.8. Three different first-ply failure envelopes for a $[0/45/90/-45]_s$ graphite-epoxy laminate are shown in Figure 7.7.   The three points listed below lie on these failure envelopes. In each case, use program CLT to determine which ply(ies) are predicted to fail, according to the Maximum Stress Failure Criterion:

(a) $N_{xx} = 379.0kN/m$ $N_{yy} = 0kN/m$ (this point lies on the $\Delta T = \Delta M = 0$ curve)

(b) $N_{xx} = 79.41kN/m$ $N_{yy} = 0kN/m$ (this point lies on the $\Delta T = -155°C$, $\Delta M = 0$ curve)

(c) $N_{xx} = 159.1kN/m$ $N_{yy} = 0kN/m$ (this point lies on the $\Delta T = -155°C$, $\Delta M = 1\%$ curve)

7.9. Three different first-ply failure envelopes for a $[0/45/90/-45]_s$ graphite-epoxy laminate are shown in Figure 7.7.   The three points listed below lie on these failure envelopes. In each case, use program CLT to determine which ply(ies) are predicted to fail, according to the Maximum Stress Failure Criterion:

(a) $N_{xx} = 0kN/m$ $N_{yy} = 379.0kN/m$ (this point lies on the $\Delta T = \Delta M = 0$ curve)

(b) $N_{xx} = 0kN/m$ $N_{yy} = 79.41kN/m$ (this point lies on the $\Delta T = -155°C$, $\Delta M = 0$ curve)

(c) $N_{xx} = 0kN/m$ $N_{yy} = 159.1kN/m$ (this point lies on the $\Delta T = -155°C$, $\Delta M = 1\%$ curve)

7.10. Three different first-ply failure envelopes for a $[0/45/90/-45]_s$ graphite-epoxy laminate are shown in Figure 7.7.   The three points listed below lie on these failure envelopes. In each case, use program CLT to determine which ply(ies) are predicted to fail, according to the Maximum Stress Failure Criterion:

(a) $N_{xx} = -115.2kN/m$ $N_{yy} = 277.6kN/m$ (this point lies on the $\Delta T = \Delta M = 0$ curve)

(b) $N_{xx} = -205.6kN/m$ $N_{yy} = 91.67kN/m$ (this point lies on the $\Delta T = -155°C$, $\Delta M = 0$ curve)

(c) $N_{xx} = -172.5kN/m$ $N_{yy} = 169.4kN/m$ (this point lies on the $\Delta T = -155°C$, $\Delta M = 1\%$ curve)