

Supplemental problem 01: Given the stress fields: [-12, 3, -4; 3, 5, 1; -4, 1, -8], determine the corresponding strain field given  $E=30e06$  and  $\nu=.3$ .

E=		3.00E+07	nu=		0.3						
Strain									Stress		
e <sub>x</sub>	-3.70E-04	"="	3.33E-08	-1.00E-08	-1.00E-08	0	0	0	x	-1.2000E+04	s <sub>x</sub>
e <sub>y</sub>	3.67E-04		-1.00E-08	3.33E-08	-1.00E-08	0	0	0		5.0000E+03	s <sub>y</sub>
e <sub>z</sub>	-1.97E-04		-1.00E-08	-1.00E-08	3.33E-08	0	0	0		-8.0000E+03	s <sub>z</sub>
e <sub>zy</sub>	8.67E-05		0	0	0	8.67E-08	0	0		1.0000E+03	s <sub>zy</sub>
e <sub>zx</sub>	-3.47E-04		0	0	0	0	8.67E-08	0		-4.0000E+03	s <sub>zx</sub>
e <sub>xy</sub>	2.60E-04		0	0	0	0	0	8.67E-08		3.0000E+03	s <sub>xy</sub>
Stress									Strain		
s <sub>x</sub>		"="	40384615	17307692	17307692	0	0	0	x		e <sub>x</sub>
s <sub>y</sub>			17307692	40384615	17307692	0	0	0			e <sub>y</sub>
s <sub>z</sub>			17307692	17307692	40384615	0	0	0			e <sub>z</sub>
s <sub>zy</sub>			0	0	0	11538462	0	0			e <sub>zy</sub>
s <sub>zx</sub>			0	0	0	0	11538462	0			e <sub>zx</sub>
s <sub>xy</sub>			0	0	0	0	0	11538462			e <sub>xy</sub>