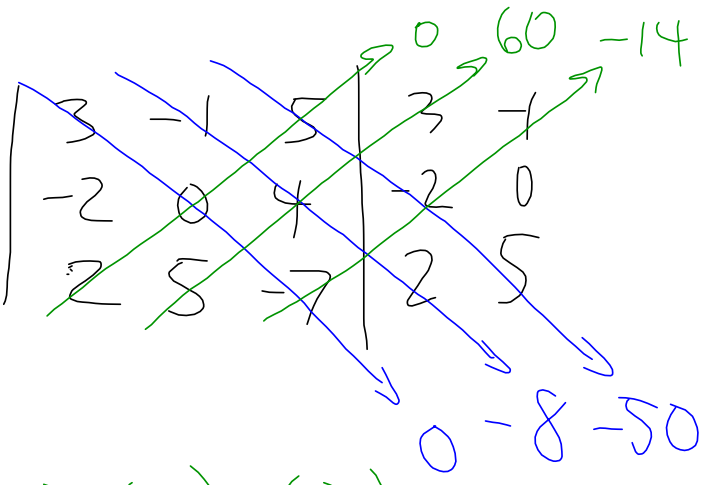
(1) $$-\frac{\nu\sigma_{xx}}{E}+\frac{\sigma_{yy}}{E}-\frac{\nu\sigma_{zz}}{E}=\epsilon_{yy}$$

(2) $$\frac{\tau_{zx}}{G}=\gamma_{zx}$$

(3) $$\begin{bmatrix}\frac{1}{E} & -\frac{\nu}{E} & -\frac{\nu}{E}\\ -\frac{\nu}{E} & \frac{1}{E} & -\frac{\nu}{E}\\ -\frac{\nu}{E} & -\frac{\nu}{E} & \frac{1}{E}\end{bmatrix}\begin{bmatrix}\sigma_{xx}\\ \sigma_{yy}\\ \sigma_{zz}\end{bmatrix}=\begin{bmatrix}\epsilon_{xx}\\ \epsilon_{yy}\\ \epsilon_{zz}\end{bmatrix},\quad \frac{1}{G}\begin{bmatrix}1&0&0\\0&1&0\\0&0&1\end{bmatrix}\begin{bmatrix}\tau_{xy}\\ \tau_{yz}\\ \tau_{zx}\end{bmatrix}=\begin{bmatrix}\gamma_{xy}\\ \gamma_{yz}\\ \gamma_{zx}\end{bmatrix}$$

A is square, $\det(A)$ or $|A|$

$$\det\left(\begin{bmatrix} a & b \\ c & d \end{bmatrix}\right) = \begin{vmatrix} a & b \\ c & d \end{vmatrix} = ad - bc$$



$0+(-8)+(-50) - 0-60-(-14) = -104$

Add "down" values

subtract "up" values

For Wednesday — Quiz

1. Det of a 3x3 by hand
2. process @ top of Ch. 3 pg. 27
3. process @ top of pg. 28

1 try $\frac{1}{2}$

2 tries $\frac{1}{4}$

3 tries $\frac{1}{8}$

4 $\frac{1}{16}$

5 0