$$\mathbf{GG1and2FD} = \frac{\left(-6\,k^2 - H^2\,k^4\right)\,dx^2}{4\,H\,\left(3 + H^2\,k^2\right)^2}$$

$$\frac{dx^2\,\left(-6\,k^2 - H^2\,k^4\right)}{4\,H\,\left(3 + H^2\,k^2\right)^2}$$

$$\mathbf{Gn1and2FD} = \frac{\left(6\,k^2 + H^2\,k^4\right)\,U\,dx^2}{4\,H\,\left(3 + H^2\,k^2\right)^2}$$

$$\frac{dx^2\,\left(6\,k^2 + H^2\,k^4\right)\,U}{4\,H\,\left(3 + H^2\,k^2\right)^2}$$

$$\mathbf{GG2FEM} = \frac{\left(12\,k^2 + 5\,H^2\,k^4\right)\,dx^2}{40\,H\,\left(3 + H^2\,k^2\right)^2}$$

$$\frac{dx^2\,\left(12\,k^2 + 5\,H^2\,k^4\right)}{40\,H\,\left(3 + H^2\,k^2\right)^2}$$

$$\mathbf{Gn2FEM} = -\frac{\left(\left(12\,k^2 + 5\,H^2\,k^4\right)\,U\right)\,dx^2}{40\,\left(H\,\left(3 + H^2\,k^2\right)^2\right)}$$

$$-\frac{dx^2\,\left(12\,k^2 + 5\,H^2\,k^4\right)\,U}{40\,H\,\left(3 + H^2\,k^2\right)^2}$$

$$\mathbf{GG3} = \frac{\left(-243\,k^4 - 49\,H^2\,k^6\right)\,dx^4}{960\,H\,\left(3 + H^2\,k^2\right)^2}$$

$$\frac{dx^4\,\left(-243\,k^4 - 49\,H^2\,k^6\right)}{960\,H\,\left(3 + H^2\,k^2\right)^2}$$

$$\mathbf{Gn3} = \frac{\left(243\,k^4 + 49\,H^2\,k^6\right)\,U\,dx^4}{960\,H\,\left(3 + H^2\,k^2\right)^2}$$

$$\frac{dx^4\,\left(243\,k^4 + 49\,H^2\,k^6\right)\,U}{960\,H\,\left(3 + H^2\,k^2\right)^2}$$