In[32]:=
$$\text{FnG1FDdt} = -\frac{3\,(k\,w)\,dt^2}{2\left(3+H^2\,k^2\right)}$$

$$\text{FnG1FDdxdt} = \frac{i\left(6\,k^3+H^2\,k^5\right)dt}{4\left(3+H^2\,k^2\right)^2} * dx^2;$$

$$\text{FnG1FDdxdtRed} = \frac{i\left(6\ +H^2\,k\text{^}2\right)k\text{^}3\,dt}{4\left(3+H^2\,k^2\right)^2} * dx^2$$

$$\text{FnG1FDdx} = 0;$$

Out[32]=
$$-\frac{3\,dt^2\,k\,w}{2\left(3+H^2\,k^2\right)}$$

Out[34]=
$$\frac{i\,dt\,dx^2\,k^3\left(6+H^2\,k^2\right)}{4\left(3+H^2\,k^2\right)^2}$$

In[36]:=
$$\text{FnG2FDdt} = -\frac{3\,(k\,w)\,dt^2}{2\left(3+H^2\,k^2\right)}$$

$$\text{FnG2FDdxdt} = \frac{i\left(6\,k^3+H^2\,k^5\right)dt}{4\left(3+H^2\,k^2\right)^2}\,dx^2;$$

$$\text{FnG2FDdxdtRed} = \frac{i\left(6\ +H^2\,k\text{^}2\right)k\text{^}3\,dt}{4\left(3+H^2\,k^2\right)^2} * dx^2$$

$$\text{FnG2FDdx} = 0$$

Out[36]=
$$-\frac{3\,dt^2\,k\,w}{2\left(3+H^2\,k^2\right)}$$

Out[38]=
$$\frac{i\,dt\,dx^2\,k^3\left(6+H^2\,k^2\right)}{4\left(3+H^2\,k^2\right)^2}$$

Out[39]= 0

In[40]:=
$$\text{FnG2FEMdt} = -\frac{3\,(k\,w)\,dt^2}{2\left(3+H^2\,k^2\right)}$$

$$\text{FnG2FEMdxdt} = -\frac{i\left(12\,k^3+5\,H^2\,k^5\right)dt}{40\left(3+H^2\,k^2\right)^2}\,dx^2;$$

$$\text{FnG2FEMdxdtRed} = -\frac{i\left(12\ +5\,H^2\,k^2\right)k^3\,dt}{40\left(3+H^2\,k^2\right)^2}\,dx^2$$

$$\text{FnG2FEMdx} = 0$$

Out[40]=
$$-\frac{3\,dt^2\,k\,w}{2\left(3+H^2\,k^2\right)}$$

Out[42]=
$$-\frac{i\,dt\,dx^2\,k^3\left(12+5\,H^2\,k^2\right)}{40\left(3+H^2\,k^2\right)^2}$$

Out[43]= 0

In[44]:=
$$\mathbf{FnG3FDdt = -\frac{3\,(k\,w)\,dt^2}{2\left(3+H^2\,k^2\right)}}$$

$$\mathbf{FnG3FDdxdt = \frac{i\left(243+49\,H^2\,k^2\right)k^5\,dt}{960\left(3+H^2\,k^2\right)^2}\,dx^4}$$

$$\mathbf{FnG3FDdx = 0}$$

Out[44]=
$$-\frac{3\,dt^2\,k\,w}{2\left(3+H^2\,k^2\right)}$$

Out[45]=
$$\frac{i\,dt\,dx^4\,k^5\left(243+49\,H^2\,k^2\right)}{960\left(3+H^2\,k^2\right)^2}$$

Out[46]= 0