$$\boldsymbol{\nabla} = e_x \frac{\partial}{\partial x} + e_y \frac{\partial}{\partial y} + e_z \frac{\partial}{\partial z}$$

$$\nabla^2 = \nabla \cdot \nabla = \frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2} + \frac{\partial^2}{\partial z^2}$$

$$\left(\nabla^2\right) f = \partial_x^2 f + \partial_y^2 f + \partial_z^2 f$$

$$\nabla \cdot (\nabla f) = \partial_x^2 f + \partial_y^2 f + \partial_z^2 f$$

$$\nabla = e_r \frac{\partial}{\partial r} + e_\theta \frac{1}{r} \frac{\partial}{\partial \theta} + e_\phi \frac{1}{r \sin(\theta)} \frac{\partial}{\partial \phi}$$

$$\nabla^2 = \nabla \cdot \nabla = \frac{2}{r} \frac{\partial}{\partial r} + \frac{\cos(\theta)}{r^2 \sin(\theta)} \frac{\partial}{\partial \theta} + \frac{\partial^2}{\partial r^2} + r^{-2} \frac{\partial^2}{\partial \theta^2} + \frac{1}{r^2 \sin^2(\theta)} \frac{\partial^2}{\partial \phi^2}$$

$$\left(\nabla^2\right) f = \frac{1}{r^2} \left(r^2 \partial_r^2 f + 2r \partial_r f + \partial_\theta^2 f + \frac{\partial_\theta f}{\tan(\theta)} + \frac{\partial_\phi^2 f}{\sin^2(\theta)} \right)$$

$$\nabla \cdot (\nabla f) = \frac{1}{r^2} \left(r^2 \partial_r^2 f + 2r \partial_r f + \partial_\theta^2 f + \frac{\partial_\theta f}{\tan(\theta)} + \frac{\partial_\phi^2 f}{\sin^2(\theta)} \right)$$

$$0$$

$$A^x \frac{\partial}{\partial x} + A^y \frac{\partial}{\partial y} + A^z \frac{\partial}{\partial z} + e_x \wedge e_y \left(-A^y \frac{\partial}{\partial x} + A^x \frac{\partial}{\partial y} \right) + e_x \wedge e_z \left(-A^z \frac{\partial}{\partial x} + A^x \frac{\partial}{\partial z} \right) + e_y \wedge e_z \left(-A^z \frac{\partial}{\partial y} + A^y \frac{\partial}{\partial z} \right)$$

$$e_x$$

$$e_x x \frac{\partial}{\partial x} + e_y x \frac{\partial}{\partial y} + e_z x \frac{\partial}{\partial z}$$

$$\frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2} + \frac{\partial^2}{\partial z^2} + e_x e_x 1$$

$$\frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2} + \frac{\partial^2}{\partial z^2} + e_x x \frac{\partial}{\partial x} + e_y x \frac{\partial}{\partial y} + e_z x \frac{\partial}{\partial z}$$

$$x e_x + y e_y + z e_z$$

$$e_x \wedge e_y \left(-y \frac{\partial}{\partial x} + x \frac{\partial}{\partial y} \right) + e_x \wedge e_z \left(-z \frac{\partial}{\partial x} + x \frac{\partial}{\partial z} \right) + e_y \wedge e_z \left(-z \frac{\partial}{\partial y} + y \frac{\partial}{\partial z} \right)$$

$$(e_x \wedge e_y \left(-y \frac{\partial}{\partial x} + x \frac{\partial}{\partial y} \right), e_x \wedge e_z \left(-z \frac{\partial}{\partial x} + x \frac{\partial}{\partial z} \right), e_y \wedge e_z \left(-z \frac{\partial}{\partial y} + y \frac{\partial}{\partial z} \right))$$