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

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

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

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

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

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

$$\left[\begin{array}{cc} e_x \frac{\partial}{\partial x} + e_y \frac{\partial}{\partial y} + e_z \frac{\partial}{\partial z}, & e_x \frac{\partial}{\partial x} + e_y \frac{\partial}{\partial y} + e_z \frac{\partial}{\partial z} \end{array}\right]$$

$$F$$

$$F^r e_r + F^\theta e_\theta + F^\phi e_\phi$$

$$F$$

$$\begin{aligned} \nabla \cdot (\nabla f) = & F^r e_r \\ & + F^\theta e_\theta \\ & + F^\phi e_\phi \end{aligned}$$

$$F$$

$$\left(\begin{array}{cc} \begin{array}{c} F^r e_r \\ +F^\theta e_\theta \\ +F^\phi e_\phi \end{array}, & \begin{array}{c} F^r e_r \\ +F^\theta e_\theta \\ +F^\phi e_\phi \end{array} \end{array}\right)$$