

RectangularCoordinates	
$\nabla\psi$	$\frac{\partial\psi}{\partial x}\mathbf{u}_x + \frac{\partial\psi}{\partial y}\mathbf{u}_y + \frac{\partial\psi}{\partial z}\mathbf{u}_z$
$\nabla \cdot \mathbf{A}$	$\frac{\partial A_x}{\partial x} + \frac{\partial A_y}{\partial y} + \frac{\partial A_z}{\partial z}$
$\nabla \times \mathbf{A}$	$\left[\frac{\partial A_z}{\partial y} - \frac{\partial A_y}{\partial z}\right]\mathbf{u}_x - \left[\frac{\partial A_z}{\partial x} - \frac{\partial A_x}{\partial z}\right]\mathbf{u}_y + \left[\frac{\partial A_y}{\partial x} - \frac{\partial A_x}{\partial y}\right]\mathbf{u}_z$
$\nabla^2\psi$	$\frac{\partial^2\psi}{\partial x^2} + \frac{\partial^2\psi}{\partial y^2} + \frac{\partial^2\psi}{\partial z^2}$
$\nabla^2\mathbf{A}$	$(\nabla^2 A_x)\mathbf{u}_x + (\nabla^2 A_y)\mathbf{u}_y + (\nabla^2 A_z)\mathbf{u}_z$
CylindricalCoordinates	
$\nabla\psi$	$\frac{\partial\psi}{\partial r}\mathbf{u}_r + \frac{1}{r}\frac{\partial\psi}{\partial\phi}\mathbf{u}_\phi + \frac{\partial\psi}{\partial z}\mathbf{u}_z$
$\nabla \cdot \mathbf{A}$	$\frac{A_r}{r} + \frac{\partial A_r}{\partial r} + \frac{1}{r}\frac{\partial A_\phi}{\partial\phi} + \frac{\partial A_z}{\partial z}$
$\nabla \times \mathbf{A}$	$\left[\frac{1}{r}\frac{\partial A_z}{\partial\phi} - \frac{\partial A_\phi}{\partial z}\right]\mathbf{u}_r + \left[\frac{\partial A_r}{\partial z} - \frac{\partial A_z}{\partial r}\right]\mathbf{u}_\phi + \left[\frac{1}{r}\frac{\partial(rA_\phi)}{\partial r} - \frac{1}{r}\frac{\partial A_r}{\partial\phi}\right]\mathbf{u}_z$
$\nabla^2\psi$	$\frac{1}{r}\frac{\partial}{\partial r}\left[r\frac{\partial\psi}{\partial r}\right] + \frac{1}{r^2}\frac{\partial^2\psi}{\partial\phi^2} + \frac{\partial^2\psi}{\partial z^2}$
$\nabla^2\mathbf{A}$	$\left[\nabla^2 A_r - \frac{2}{r^2}\frac{\partial A_\phi}{\partial\phi} - \frac{A_r}{r^2}\right]\mathbf{u}_r + \left[\nabla^2 A_\phi + \frac{2}{r^2}\frac{\partial A_r}{\partial\phi} - \frac{A_\phi}{r^2}\right]\mathbf{u}_\phi + (\nabla^2 A_z)\mathbf{u}_z$
SphericalCoordinates	
$\nabla\psi$	$\frac{\partial\psi}{\partial R}\mathbf{u}_R + \frac{1}{R}\frac{\partial\psi}{\partial\theta}\mathbf{u}_\theta + \frac{1}{R\sin\theta}\frac{\partial\psi}{\partial\phi}\mathbf{u}_\phi$
$\nabla \cdot \mathbf{A}$	$\frac{1}{R^2}\frac{\partial}{\partial R}(R^2 A_R) + \frac{1}{R\sin\theta}\frac{\partial}{\partial\theta}(A_\theta \sin\theta) + \frac{1}{R\sin\theta}\frac{\partial A_\phi}{\partial\phi}$
$\nabla \times \mathbf{A}$	$\frac{1}{R\sin\theta}\left[\frac{\partial}{\partial\theta}(A_\phi \sin\theta) - \frac{\partial A_\theta}{\partial\phi}\right]\mathbf{u}_R + \frac{1}{R}\left[\frac{1}{\sin\theta}\frac{\partial A_R}{\partial\phi} - \frac{\partial}{\partial R}(RA_\phi)\right]\mathbf{u}_\theta + \frac{1}{R}\left[\frac{\partial(RA_\theta)}{\partial R} - \frac{\partial A_R}{\partial\theta}\right]\mathbf{u}_\phi$
$\nabla^2\psi$	$\frac{1}{R^2}\frac{\partial}{\partial R}\left(R^2\frac{\partial\psi}{\partial R}\right) + \frac{1}{R^2\sin\theta}\frac{\partial}{\partial\theta}\left(\sin\theta\frac{\partial\psi}{\partial\theta}\right) + \frac{1}{R^2\sin^2\theta}\frac{\partial^2\psi}{\partial\phi^2}$
$\nabla^2\mathbf{A}$	$\left[\nabla^2 A_R - \frac{2}{R^2}\left(A_R + A_\theta \cot\theta + \frac{\partial A_\phi}{\partial\phi} \csc\theta + \frac{\partial A_\theta}{\partial\theta}\right)\right]\mathbf{u}_R$ $+ \left[\nabla^2 A_\theta - \frac{1}{R^2}\left(A_\theta \csc^2\theta - 2\frac{\partial A_R}{\partial\theta} + \frac{\partial A_\phi}{\partial\phi} 2\cot\theta \csc\theta\right)\right]\mathbf{u}_\theta$ $+ \left[\nabla^2 A_\phi - \frac{1}{R^2}\left(A_\phi \csc^2\theta - 2\frac{\partial A_R}{\partial\phi} \csc\theta - \frac{\partial A_\theta}{\partial\theta} 2\cot\theta \csc\theta\right)\right]\mathbf{u}_\phi$