$$\boldsymbol{A} = A^x \boldsymbol{e_x} + A^y \boldsymbol{e_y} + A^z \boldsymbol{e_z}$$

$$\boldsymbol{B} = B^{xy} \boldsymbol{e_x} \wedge \boldsymbol{e_y} + B^{xz} \boldsymbol{e_x} \wedge \boldsymbol{e_z} + B^{yz} \boldsymbol{e_y} \wedge \boldsymbol{e_z}$$

$$\boldsymbol{\nabla} f = \partial_x f \boldsymbol{e_x} + \partial_y f \boldsymbol{e_y} + \partial_z f \boldsymbol{e_z}$$

$$\boldsymbol{\nabla} \cdot \boldsymbol{A} = \partial_x A^x + \partial_y A^y + \partial_z A^z$$

$$\boldsymbol{\nabla A} = (\partial_x A^x + \partial_y A^y + \partial_z A^z)$$
$$+ (-\partial_y A^x + \partial_x A^y) \boldsymbol{e_x} \wedge \boldsymbol{e_y} + (-\partial_z A^x + \partial_x A^z) \boldsymbol{e_x} \wedge \boldsymbol{e_z} + (-\partial_z A^y + \partial_y A^z) \boldsymbol{e_y} \wedge \boldsymbol{e_z}$$

$$-I(\boldsymbol{\nabla} \wedge \boldsymbol{A}) = (-\partial_z A^y + \partial_y A^z) \boldsymbol{e_x} + (\partial_z A^x - \partial_x A^z) \boldsymbol{e_y} + (-\partial_y A^x + \partial_x A^y) \boldsymbol{e_z}$$

$$\boldsymbol{\nabla B} = (-\partial_y B^{xy} - \partial_z B^{xz}) \boldsymbol{e_x} + (\partial_x B^{xy} - \partial_z B^{yz}) \boldsymbol{e_y} + (\partial_x B^{xz} + \partial_y B^{yz}) \boldsymbol{e_z}$$
$$+ (\partial_z B^{xy} - \partial_y B^{xz} + \partial_x B^{yz}) \boldsymbol{e_x} \wedge \boldsymbol{e_y} \wedge \boldsymbol{e_z}$$

$$\boldsymbol{\nabla} \wedge \boldsymbol{B} = (\partial_z B^{xy} - \partial_y B^{xz} + \partial_x B^{yz}) \boldsymbol{e_x} \wedge \boldsymbol{e_y} \wedge \boldsymbol{e_z}$$

$$\boldsymbol{\nabla} \cdot \boldsymbol{B} = (-\partial_y B^{xy} - \partial_z B^{xz}) \boldsymbol{e_x} + (\partial_x B^{xy} - \partial_z B^{yz}) \boldsymbol{e_y} + (\partial_x B^{xz} + \partial_y B^{yz}) \boldsymbol{e_z}$$