

9, 9.5

$$V = xyz[x, y, z] = [x^2yz, xy^2z, xyz^2]$$

$$\text{curl}(V) = \begin{bmatrix} \frac{\partial V_3}{\partial y} - \frac{\partial V_2}{\partial z} \\ \frac{\partial V_1}{\partial z} - \frac{\partial V_3}{\partial x} \\ \frac{\partial V_2}{\partial x} - \frac{\partial V_1}{\partial y} \end{bmatrix}$$

$$= \begin{bmatrix} xz^2 - xy^2 \\ x^2y - yz^2 \\ y^2z - x^2z \end{bmatrix}$$