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$$\vec{R} = r \cdot \vec{e}_r + z \cdot \vec{e}_z$$

$$\operatorname{div} \vec{R} = \frac{1}{r} \cdot \frac{\delta}{\delta r}(r \cdot r) + \frac{1}{r} \cdot \frac{\delta}{\delta \varphi}(0) + \frac{\delta}{\delta z}(z) = \frac{2r}{r} + 0 + 1 = 3$$

$$\vec{R} = r \cdot \vec{e}_r$$

$$\operatorname{div} \vec{R} = \frac{1}{r^2} \cdot \frac{\delta}{\delta r}(r^2 \cdot r) + \frac{1}{r \cdot \sin \theta} \cdot \frac{\delta}{\delta \theta}(0 \sin \theta) + \frac{1}{r \cdot \sin \theta} \cdot \frac{\delta}{\delta \varphi}(0) = \frac{3r^2}{r^2} = 3$$