Бекешева Анастасія ФІ-12

Determine The Hard Table 17 12
$$\vec{R} = r \cdot \vec{e_r} + z \cdot \vec{e_z}$$

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

$$\vec{R} = r \cdot \vec{e_r}$$

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