

Problem 114B

Velocity components in a fluid are given by

$$u = \frac{-2xyz}{(x^2 + y^2)^2}$$
$$v = \frac{(x^2 - y^2)z}{(x^2 + y^2)^2}$$
$$w = \frac{y}{(x^2 + y^2)}$$

Is the fluid incompressible?