No.

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流体力学　2022年

[1] (1) $\sqrt{2gH}$

(2) $\frac{A_1}{A_2}\sqrt{2gH}$　　ユ　ユー

(3) $\rho g H\left(1-\left(\frac{A_1}{A_2}\right)^2\right)$　　ユ　ゾイ

(4) $\rho g H \frac{(A_2-A_1)^2}{A_2}$　　レ　ニュー

[2] (1) $\frac{\partial u}{\partial x}+\frac{\partial v}{\partial y}=0$

(2) $\frac{\partial u}{\partial t}+u\frac{\partial u}{\partial x}+v\frac{\partial u}{\partial y}=-\frac{1}{\rho}\frac{\partial p}{\partial x}+\nu\left(\frac{\partial^2 u}{\partial x^2}+\frac{\partial^2 u}{\partial y^2}\right)$

$\frac{\partial v}{\partial t}+u\frac{\partial v}{\partial x}+v\frac{\partial v}{\partial y}=-\frac{1}{\rho}\frac{\partial p}{\partial y}+\nu\left(\frac{\partial^2 v}{\partial x^2}+\frac{\partial^2 v}{\partial y^2}\right)$

(3) 平面ポアズイユ

(4) $\frac{\partial^2 u}{\partial x^2}=-\frac{G}{\rho\nu}$

(5) $u=-\frac{1}{2}\frac{G}{\rho\nu}(x-2H)(x+H)$

(6) 最大流速となる位置：$\frac{H}{2}$

最大流速の値：$\frac{9}{8}\frac{GH^2}{\rho\nu}$

(7) $\frac{9}{4}\frac{GH^3}{\rho\nu}$

(8) せん断応力の大きさ：$\frac{3}{2}GH$

せん断応力の向き：上向き