

【1.5】

(1) 速度ベクトル：

$$(u, v) = (2 \times 2^2, 3 \times 1) = (8, 3)$$

(2) 非定常加速度ベクトル

$$\left(\frac{\partial u}{\partial t}, \frac{\partial v}{\partial t} \right) = (0, 0)$$

(3) 移流加速度ベクトル

$$\left(u \frac{\partial u}{\partial x} + v \frac{\partial u}{\partial y}, u \frac{\partial v}{\partial x} + v \frac{\partial v}{\partial y} \right) = (2y^2 \times 0 + 3x \times 4y, 2y^2 \times 3 + 3x \times 0) = (12xy, 6y^2) = (24, 24)$$