<Simple example to understand the notations /terms>

V

→ wall moving w/ $|\vec{v}|_L = V$

Shear rate
$$\dot{\gamma} = \frac{V}{L}$$

→ ⓧ
fluid

L

←

wall (steady) $|\vec{v}|_0 = 0$
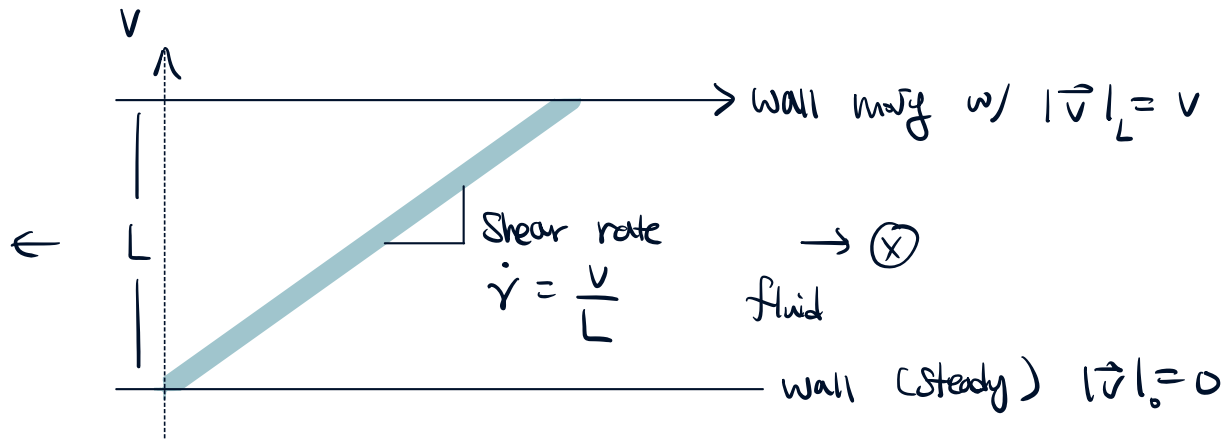
In general, $\dot{\gamma} = |D|$, where

$$D = \frac{1}{2}\left(\nabla\vec{v} + \nabla\vec{v}^T\right) : \text{Symmetric}$$

Strain rate tensor.

<rate − (in)dependent plastic deformation>

* $\eta = \eta(\dot{\gamma})$: Apparent viscosity.