.

## 0.1

**$a$,$b$** .

$$\boldsymbol{a} \cdot \boldsymbol{b} = ab \cos \theta = a \cdot \boldsymbol{b}_{//} = \boldsymbol{a}_{//} \cdot b$$

## 0.2

$$\boldsymbol{a} \times \boldsymbol{b} = \boldsymbol{a} \times \left( \boldsymbol{b}_\| + \boldsymbol{b}_\perp \right) = \boldsymbol{a} \times \boldsymbol{b}_\perp$$

$$\boldsymbol{a} \times \boldsymbol{b} = -\boldsymbol{b} \times \boldsymbol{a} \boldsymbol{a} \times (\boldsymbol{b} + \boldsymbol{c}) = \boldsymbol{a} \times \boldsymbol{b} + \boldsymbol{a} \times \boldsymbol{c}$$

$$\boldsymbol{a}(t), \boldsymbol{b}(t) \rightarrow \frac{d}{dt}(\boldsymbol{a} \times \boldsymbol{b}) = \dot{\boldsymbol{a}} \times \boldsymbol{b} + \boldsymbol{a} \times \dot{\boldsymbol{b}}$$