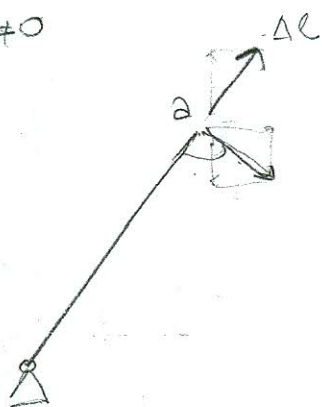


$$\frac{I}{P} \neq 0$$



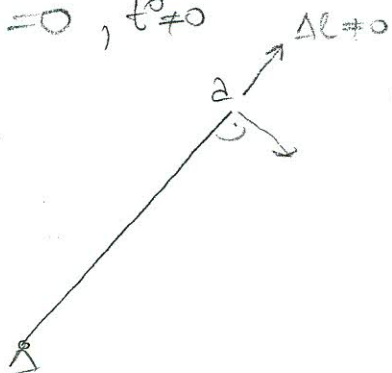
$$V_a \neq 0$$

$$\Delta l = l \cdot \epsilon$$

$$\epsilon = \frac{N}{E \cdot A} + \alpha \cdot t^0$$

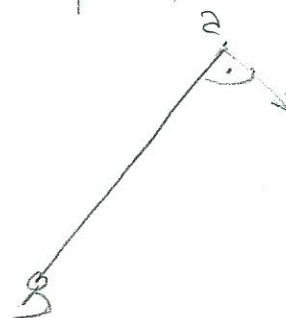
$$= \frac{1}{E \cdot A} \left( \frac{I}{P} N + E \cdot A \cdot \alpha \cdot t^0 \right)$$

$$\frac{I}{P} = 0, t^0 \neq 0$$



$$V_a \neq 0$$

$$\frac{I}{P} = 0, t^0 = 0$$



$$V_a \neq 0$$

$$\frac{I}{P} = 0$$

$$t^0 = 0$$



$$V_a = 0$$