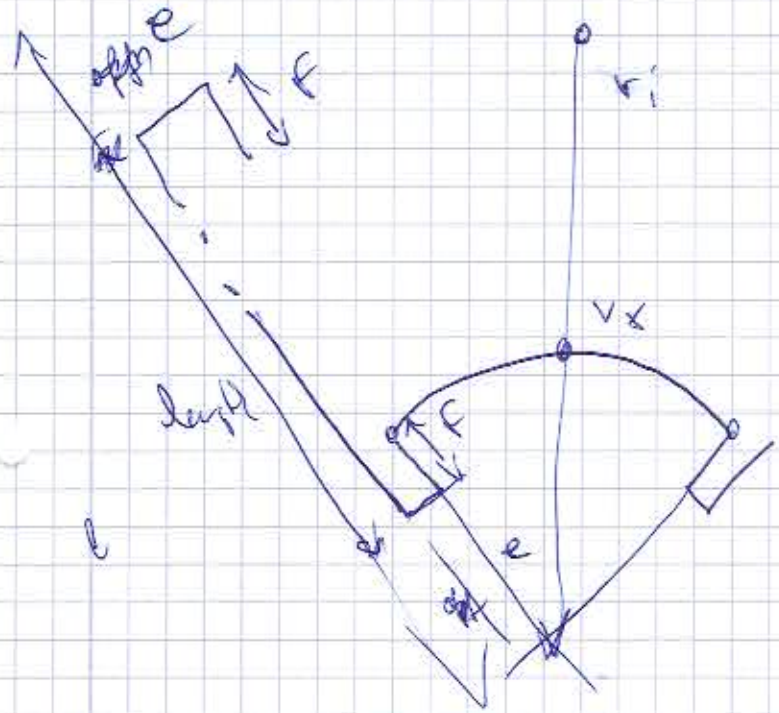
$$h^2 + h\left(\frac{2 \times r}{a}\right) - r^2 + x^2$$

$$h^2 + \frac{2 \times r}{\left(\frac{r^2}{a^2}+1\right)a} + \frac{x^2 - r^2}{\frac{r^2}{a^2}+1} = 0$$

$$p = -\frac{2 \times r}{\frac{r^2}{a^2}+1}$$

$$q = \frac{x^2 - r^2}{\frac{r^2}{a^2}+1}$$

$$h_{1/2} = -\frac{p}{2} \pm \sqrt{\frac{p^2}{4} - q}$$



$$\text{length} - 2\,\text{Flange} = 2e$$

$$e = \frac{\text{length} - 2(\text{Flange})}{2}$$

$$v_{\text{[illegible]}} = r_i - (e + F)$$

$$v_x = (0, - v_{\text{[illegible]}})$$