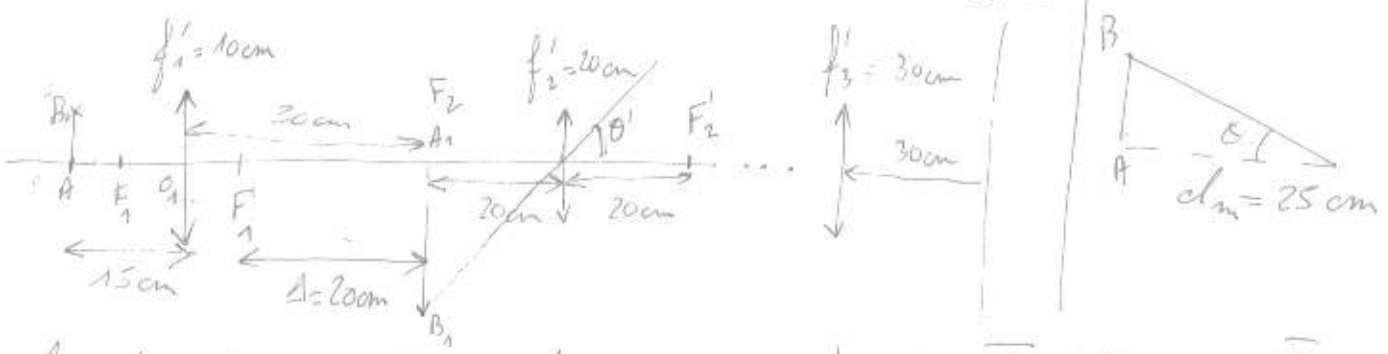
Manipulation

Le microscope optique



$$\frac{1}{\overline{OA'_1}} - \frac{1}{\overline{OA}} = \frac{1}{f'_1} \Rightarrow \overline{OA_1} = \frac{1}{\frac{1}{f'_1} + \frac{1}{\overline{OA}}} = 30\,cm$$

$$\theta' = -\frac{\overline{A_1B_1}}{f'_2} = \frac{0,7}{20} = 0,035 \qquad \theta = \frac{\overline{AB}}{d_m} = \frac{0,3}{25} = 0,012$$

Grossissement est aussi égal à

$$G = \frac{\theta'}{\theta} = \frac{0,035}{0,012} = 2,91$$

C'est proche

Le grossissement $= \frac{\theta'}{\theta} = \left| -\frac{\Delta d_m}{f'_1 f'_2} \right| = \frac{25 \times 20}{10 \times 20} = 2,5$

La puissance du microscope : $P = \frac{\alpha'}{\overline{AB}} = \frac{\Delta}{f'_1 f'_2}$