

Fem de Dupla

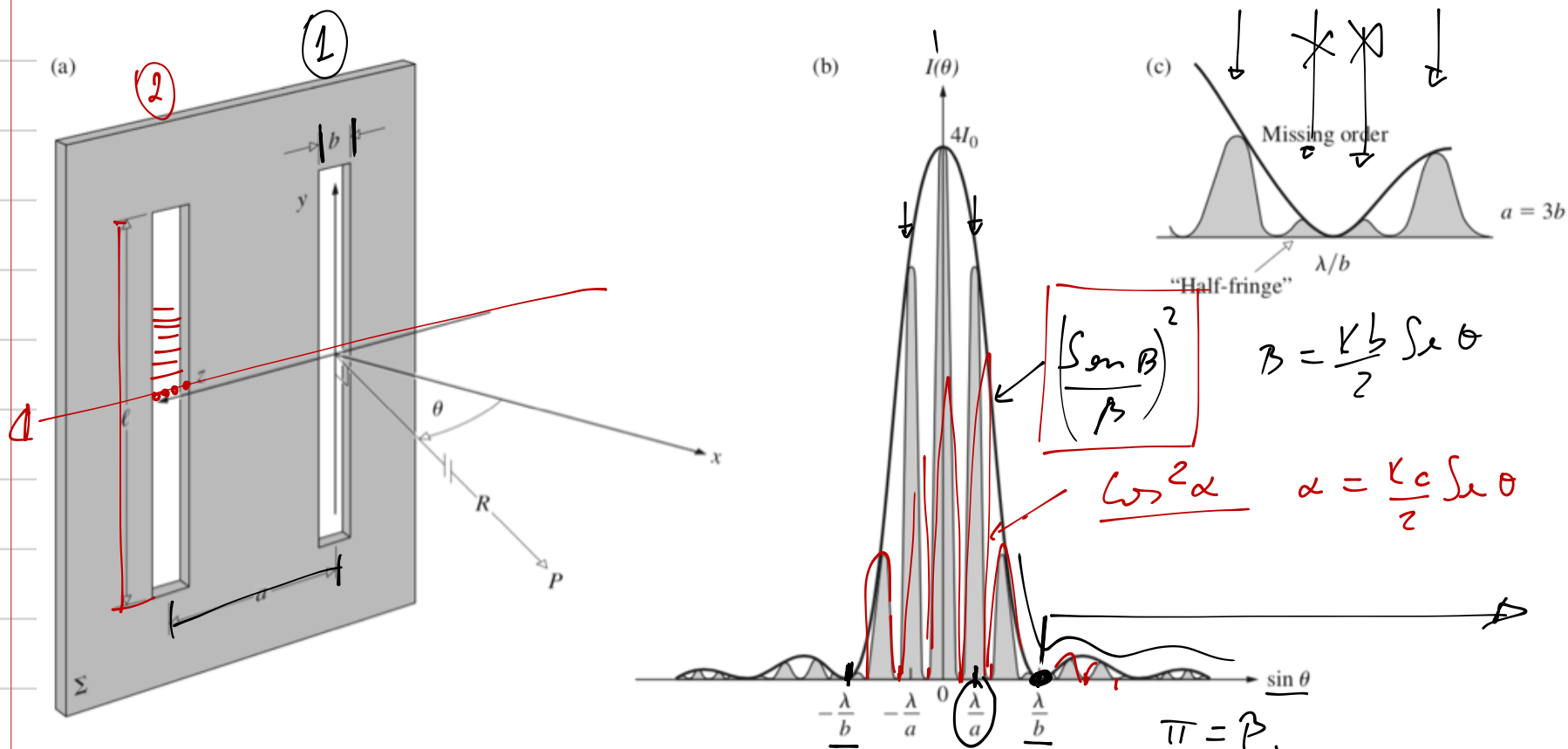
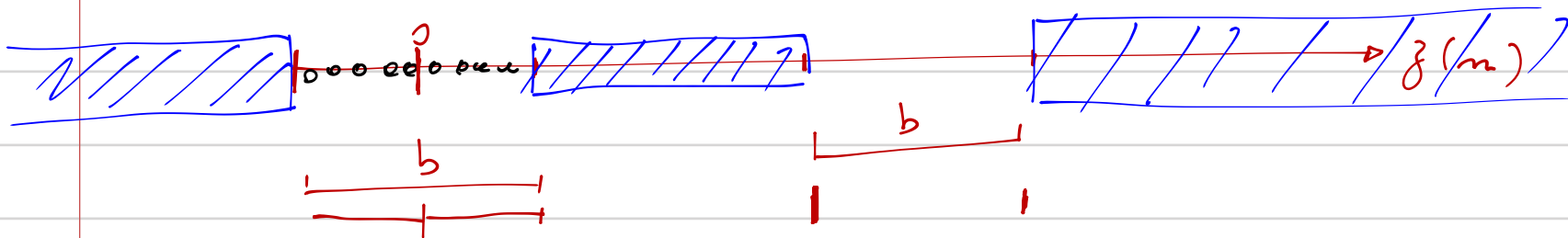
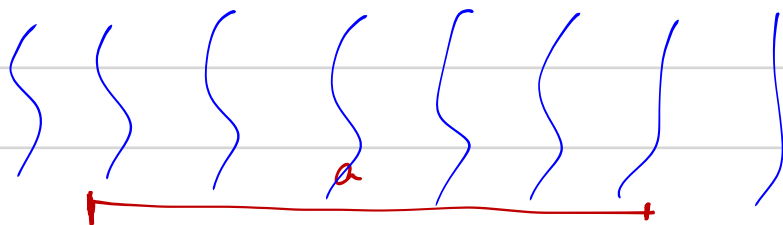
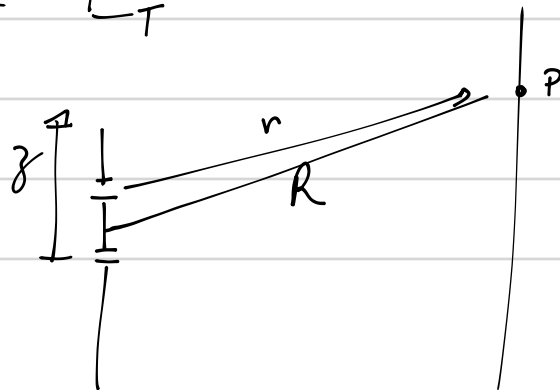


Figure 10.17 (a) Double-slit geometry. Point-P on σ is essentially infinitely far away. (b) A double-slit pattern ($a = 3b$). A detailed view of a missing order.



$$E_T = C \int_{-b/2}^{+b/2} F(z) dz + C \int_{a-b/2}^{a+b/2} F(z) dz = E_T$$

$$F(z) = \sin [\omega t - \kappa (R - z \sin \theta)]$$



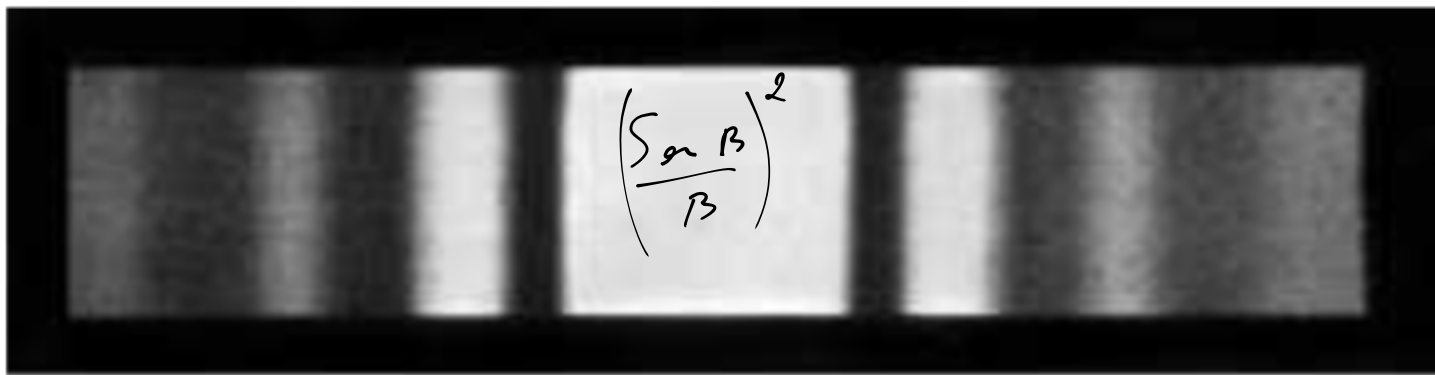
$$E_T = 2bc \left(\frac{\sin \beta}{\beta} \right) \cos \alpha \left[\sin (\omega t - KR + \alpha) \right]$$

$$\beta \equiv \frac{Kb}{2} \sin \theta$$

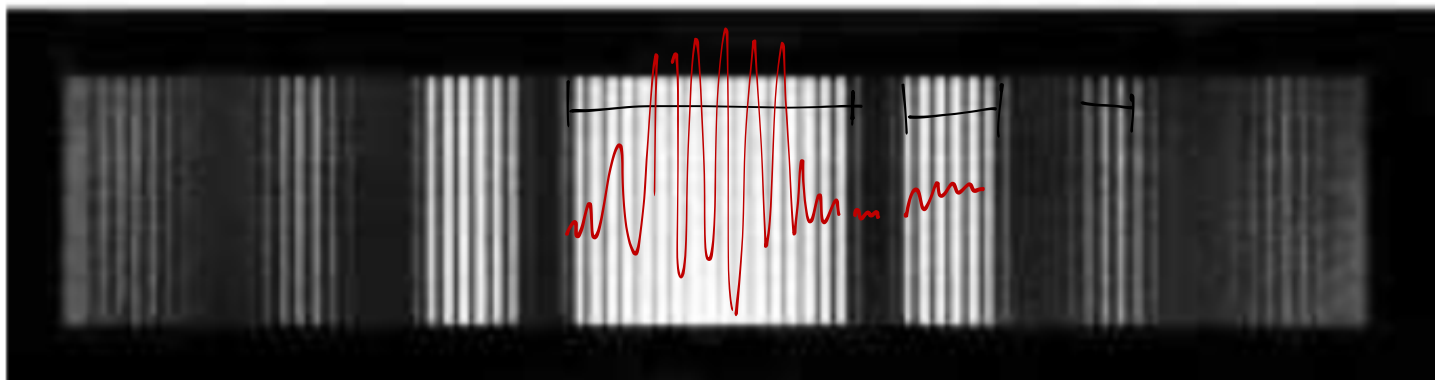
$$\alpha = \frac{Ka}{2} \sin \theta$$

$$I(\theta) = 4I_0 \left(\frac{\sin \beta}{\beta} \right)^2 \cos^2 \alpha$$

Fenda dupla



1 fenda
b



2 fendas
larg b
separação a

