

# **FYS1001**

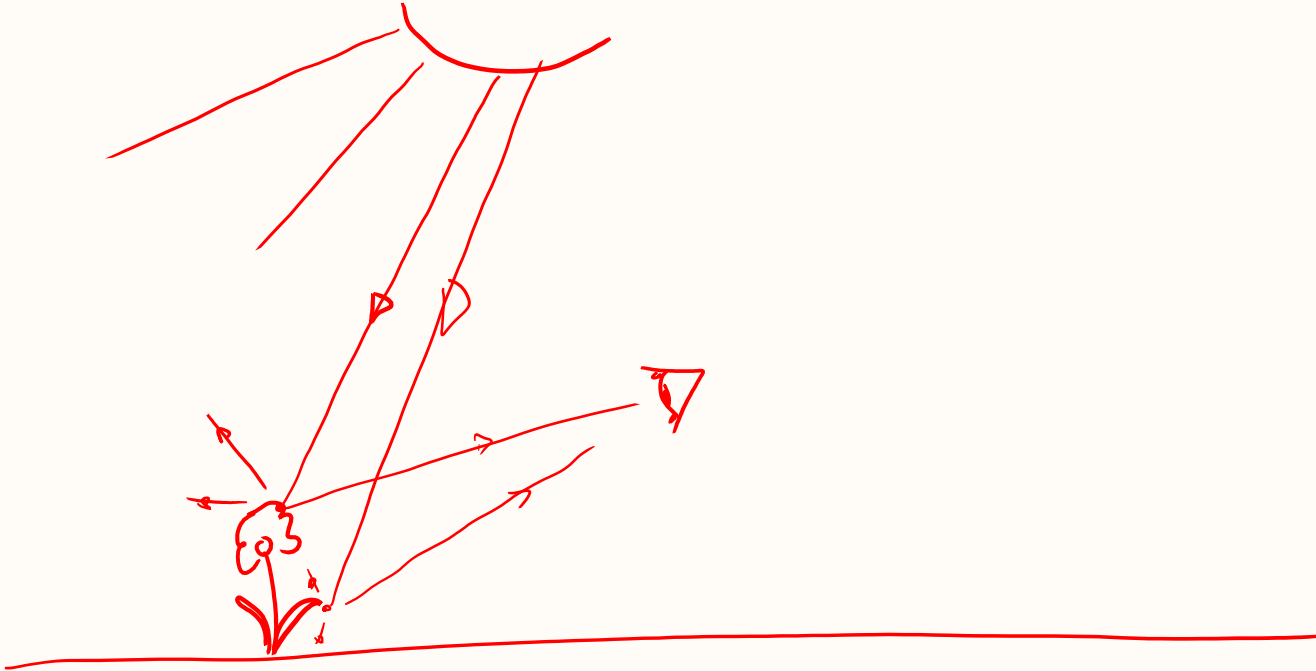
# **Innføring i fysikk**

**Lasse Clausen**

**19.04.2021**

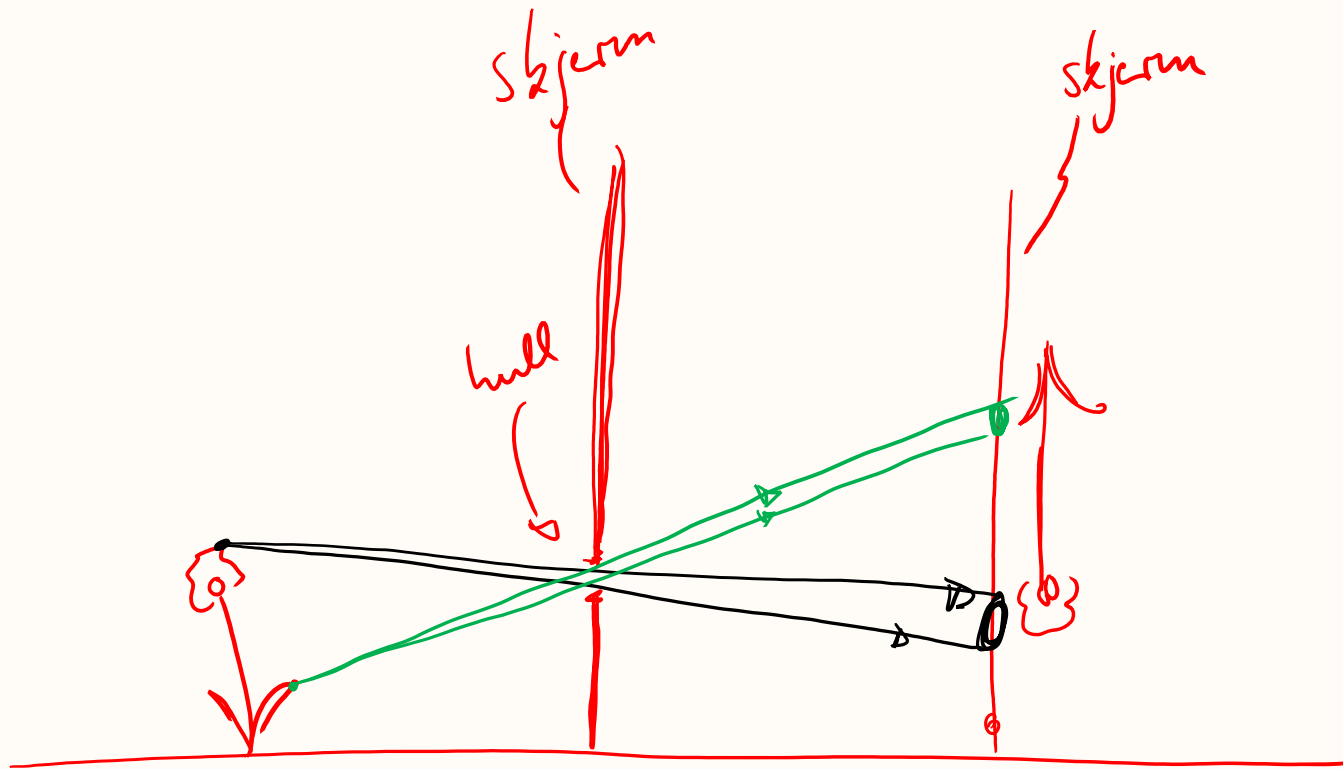
# Geometrisk optikk

beskrives vi lys som stråler



# Hullkamera

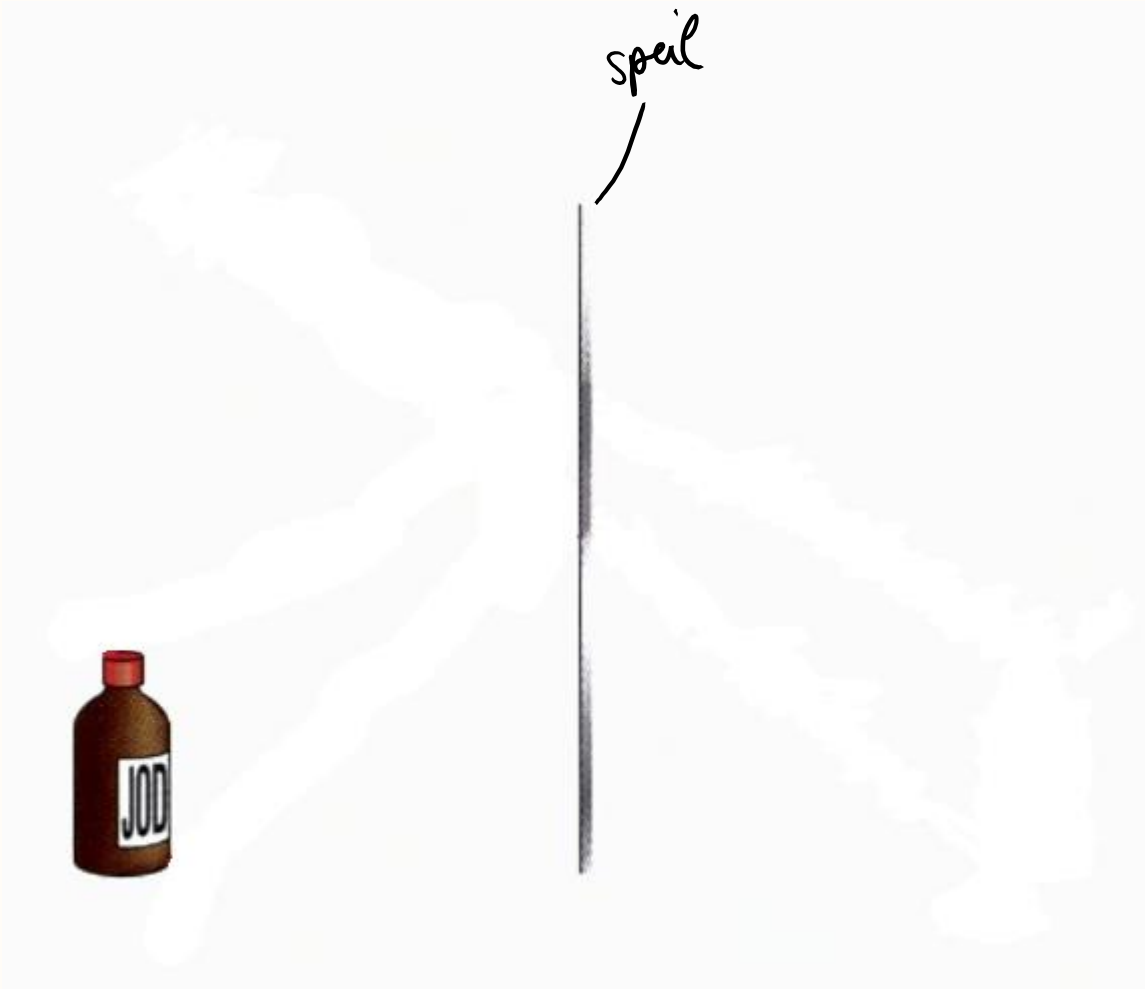
pinhole camera



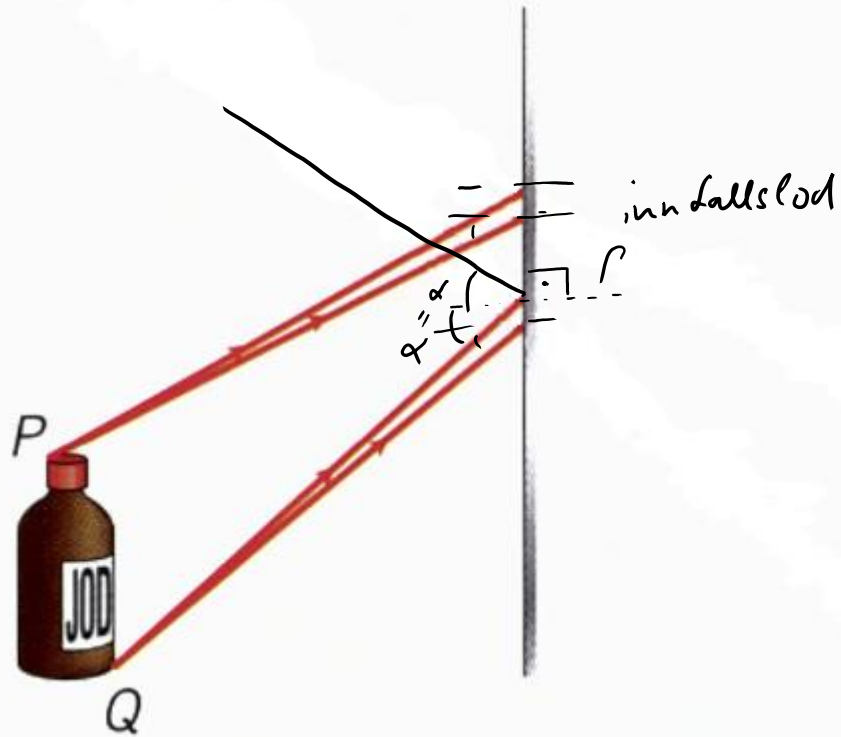
# Hullkamera



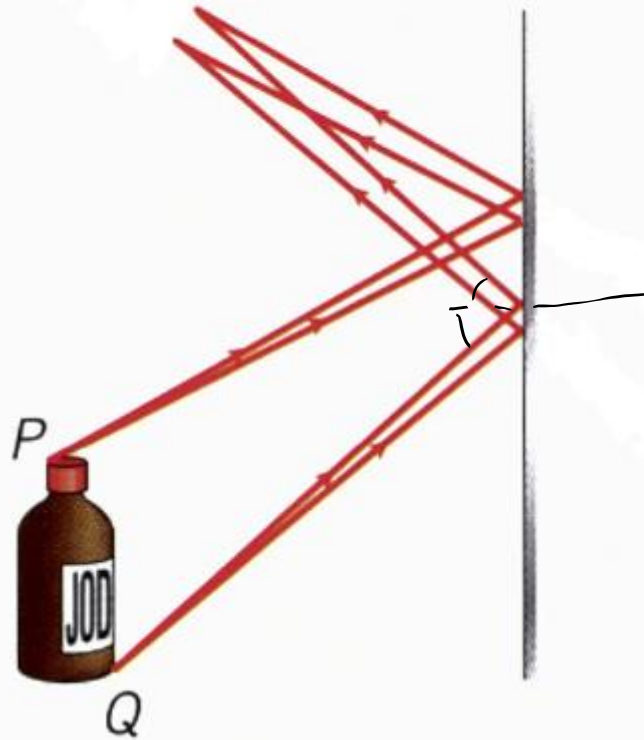
# Plan speil



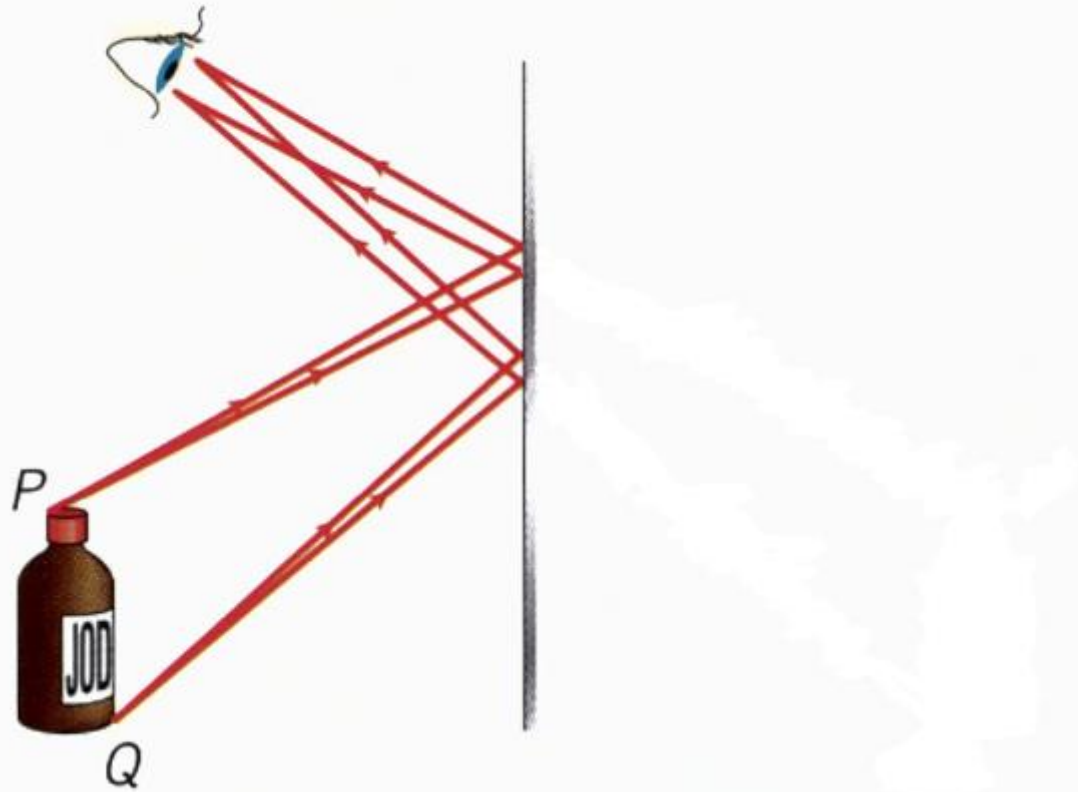
# Plan speil



# Plan speil

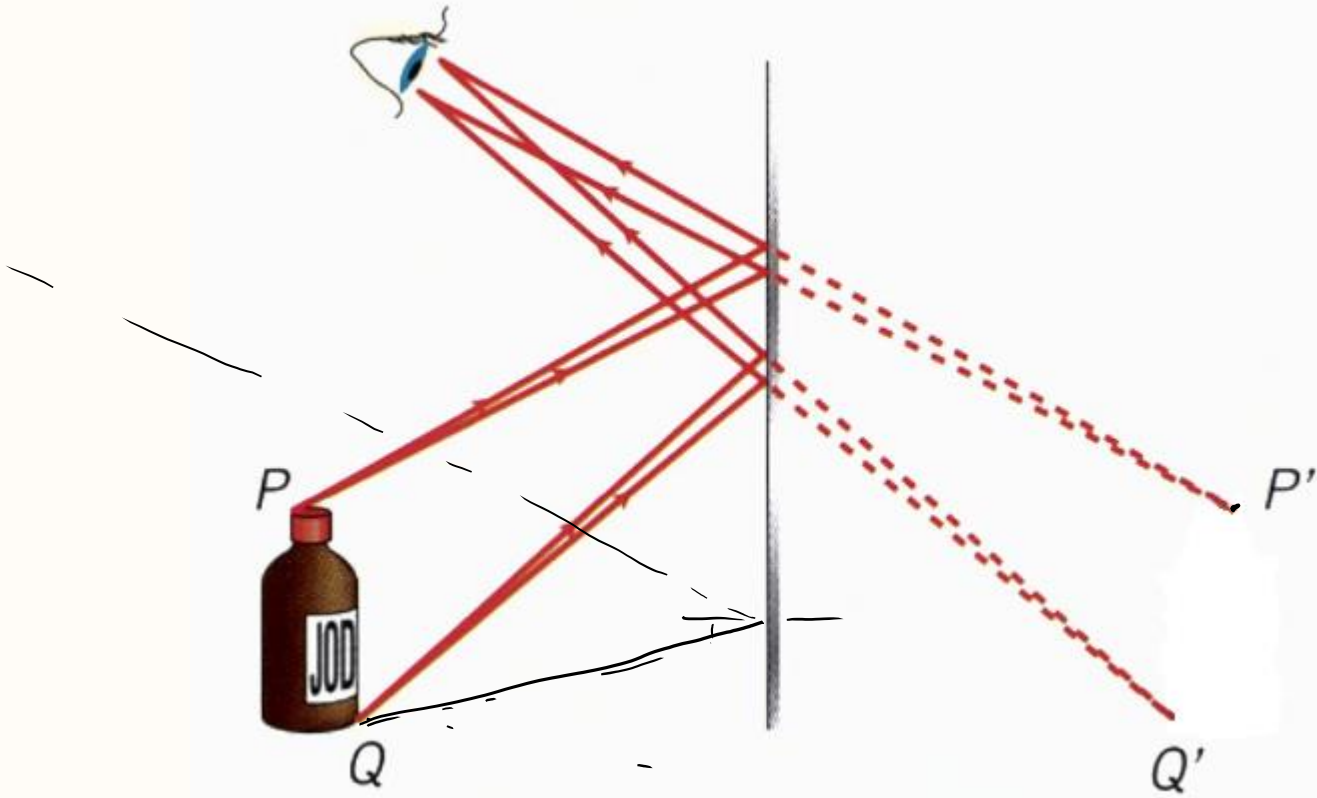


# Plan speil

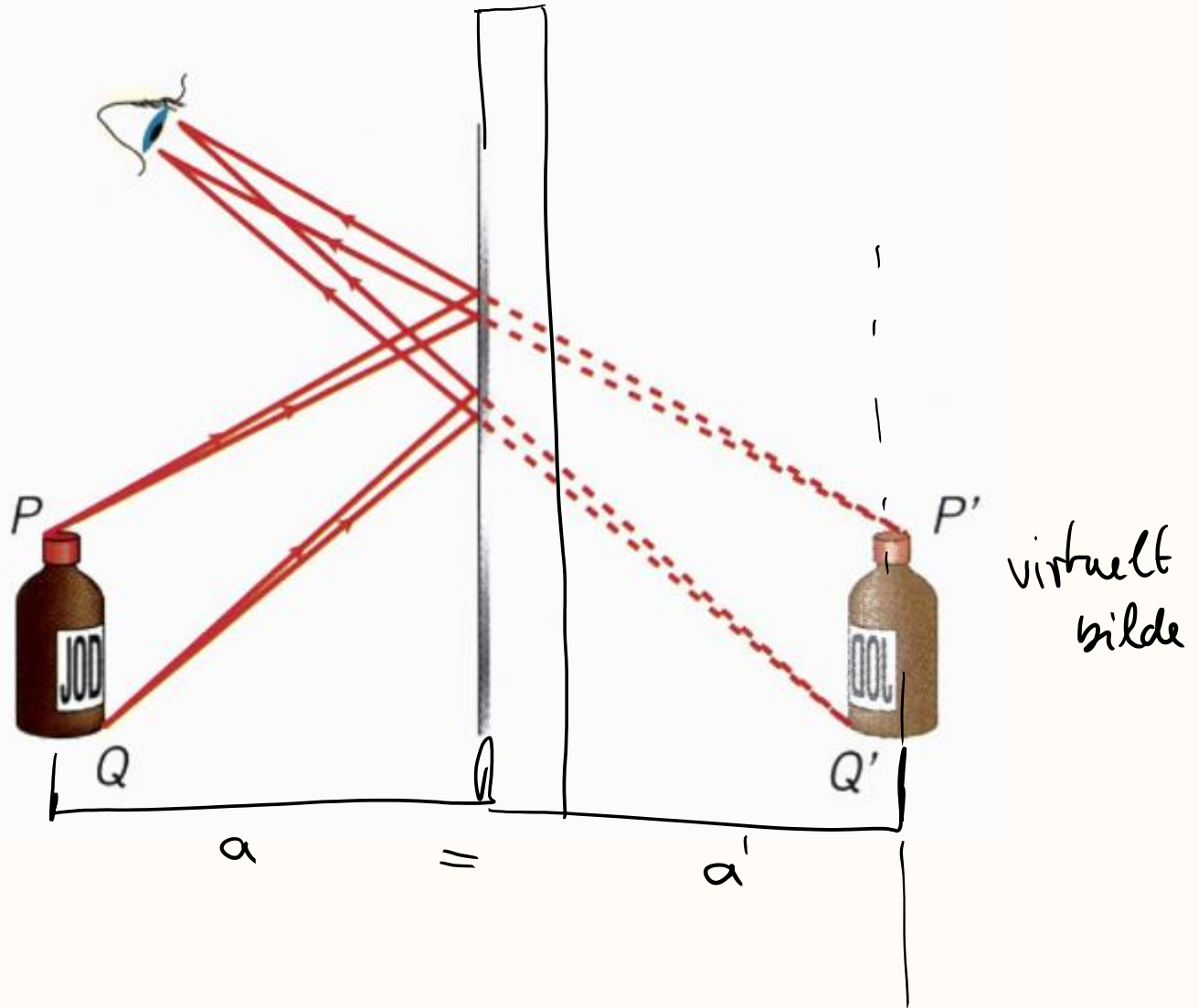




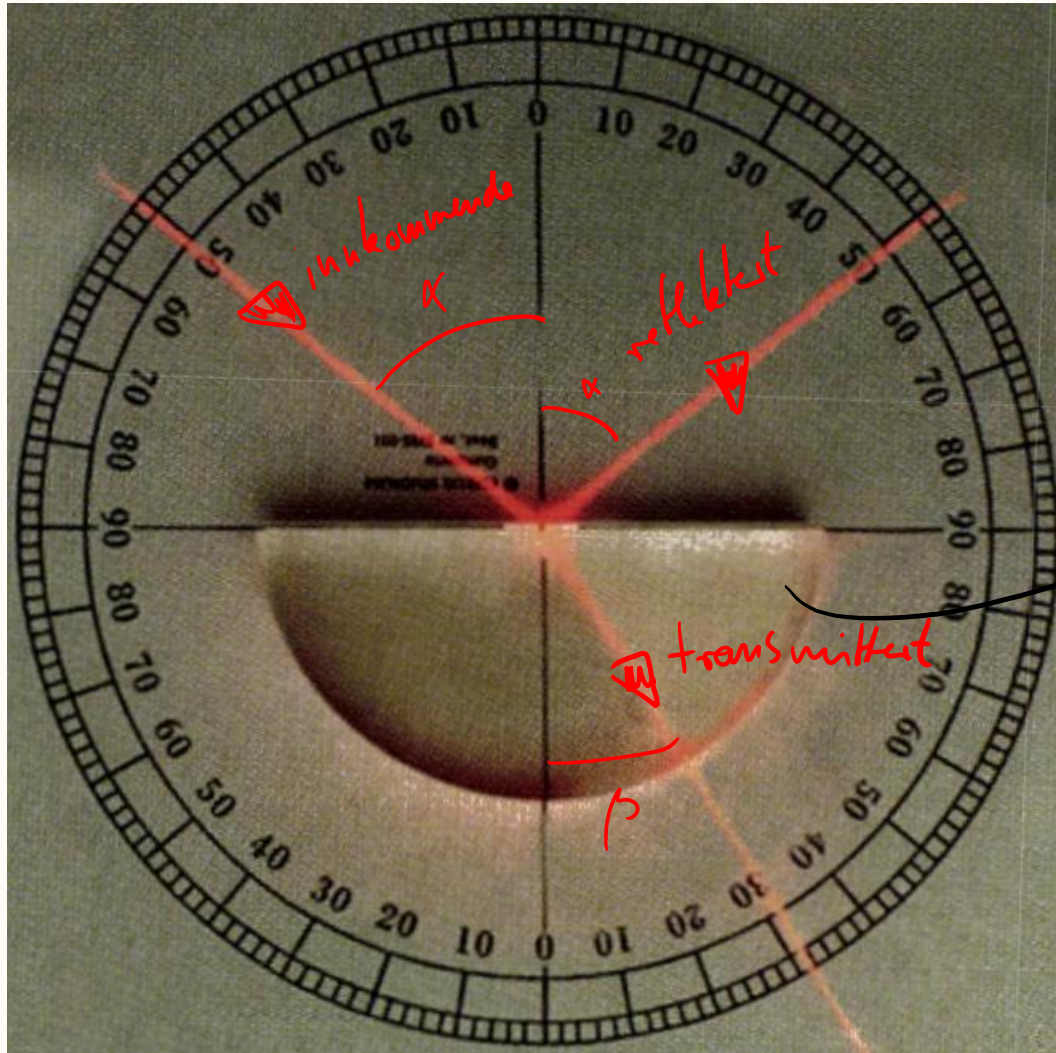
# Plan speil



# Plan speil



# Refleksjon, transmisjon



glass

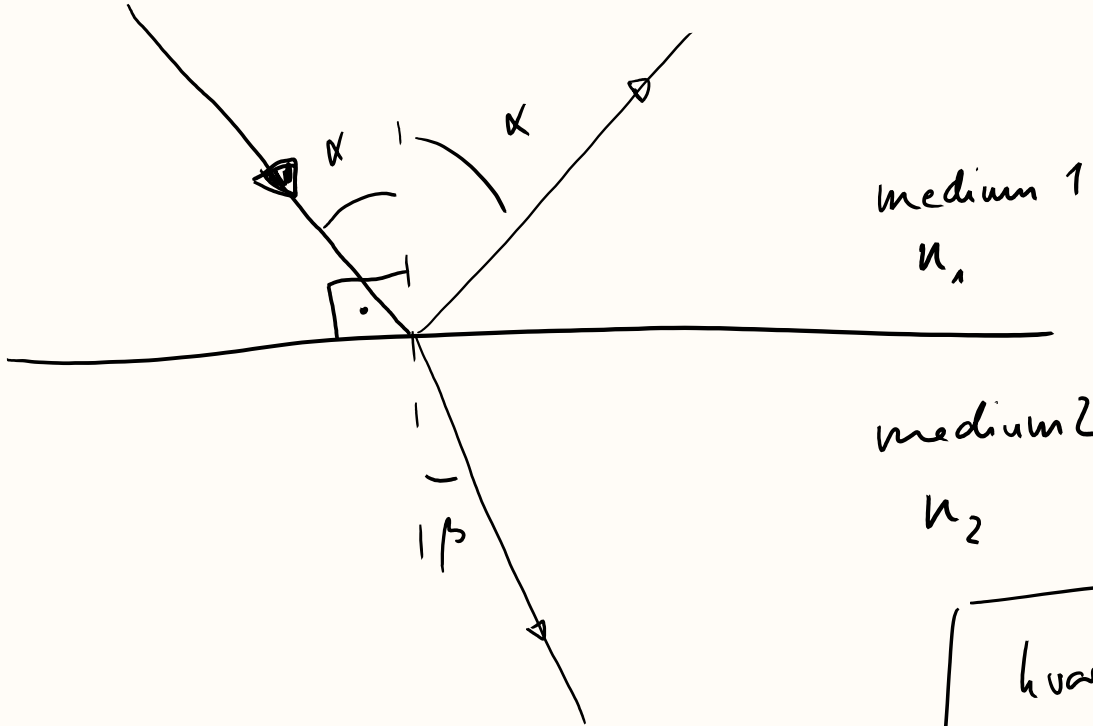
# Snells lov

lysets hastighed  
i vacuum

brytningsindeks

$$n = \frac{c}{v}$$

lysets hastighed  
i material

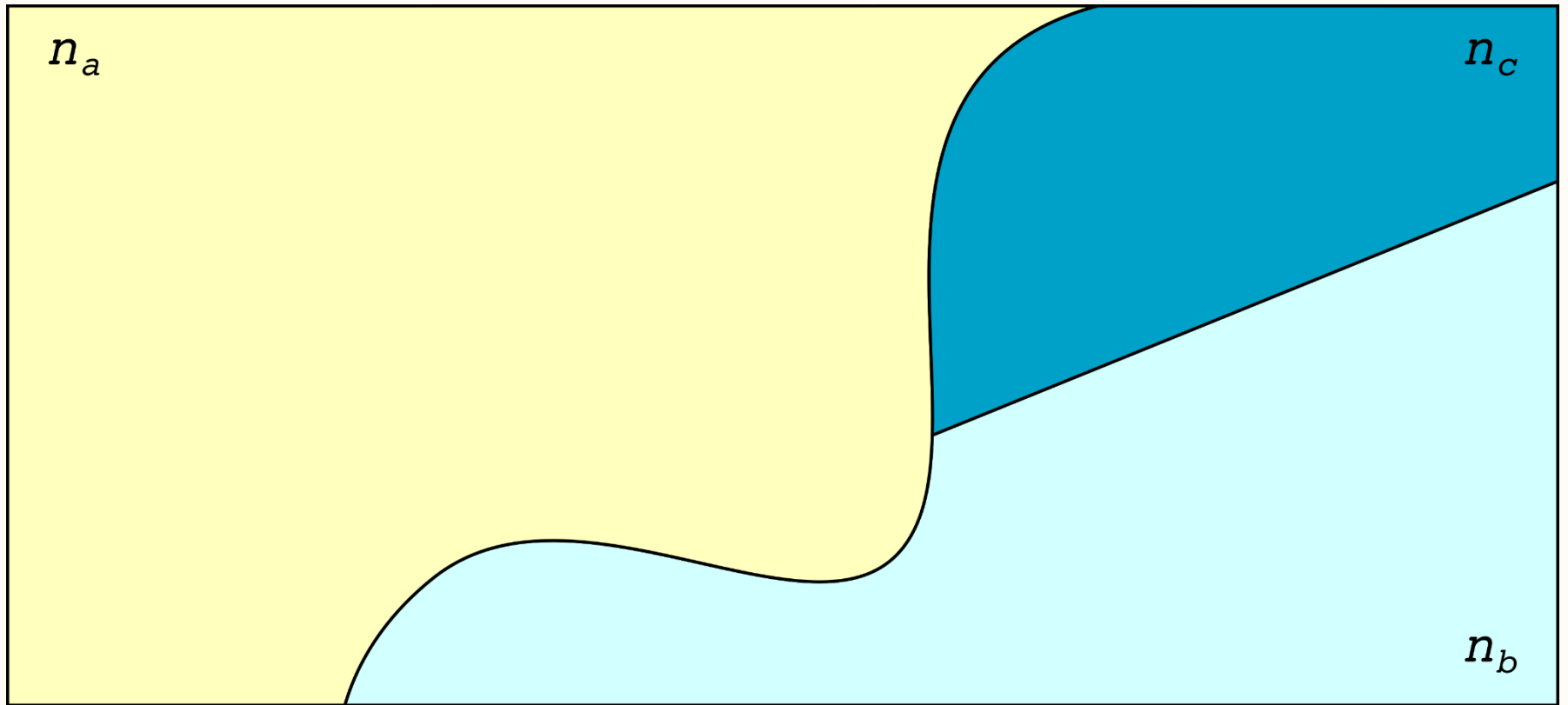


$$n_1 \sin \alpha = n_2 \sin \beta$$

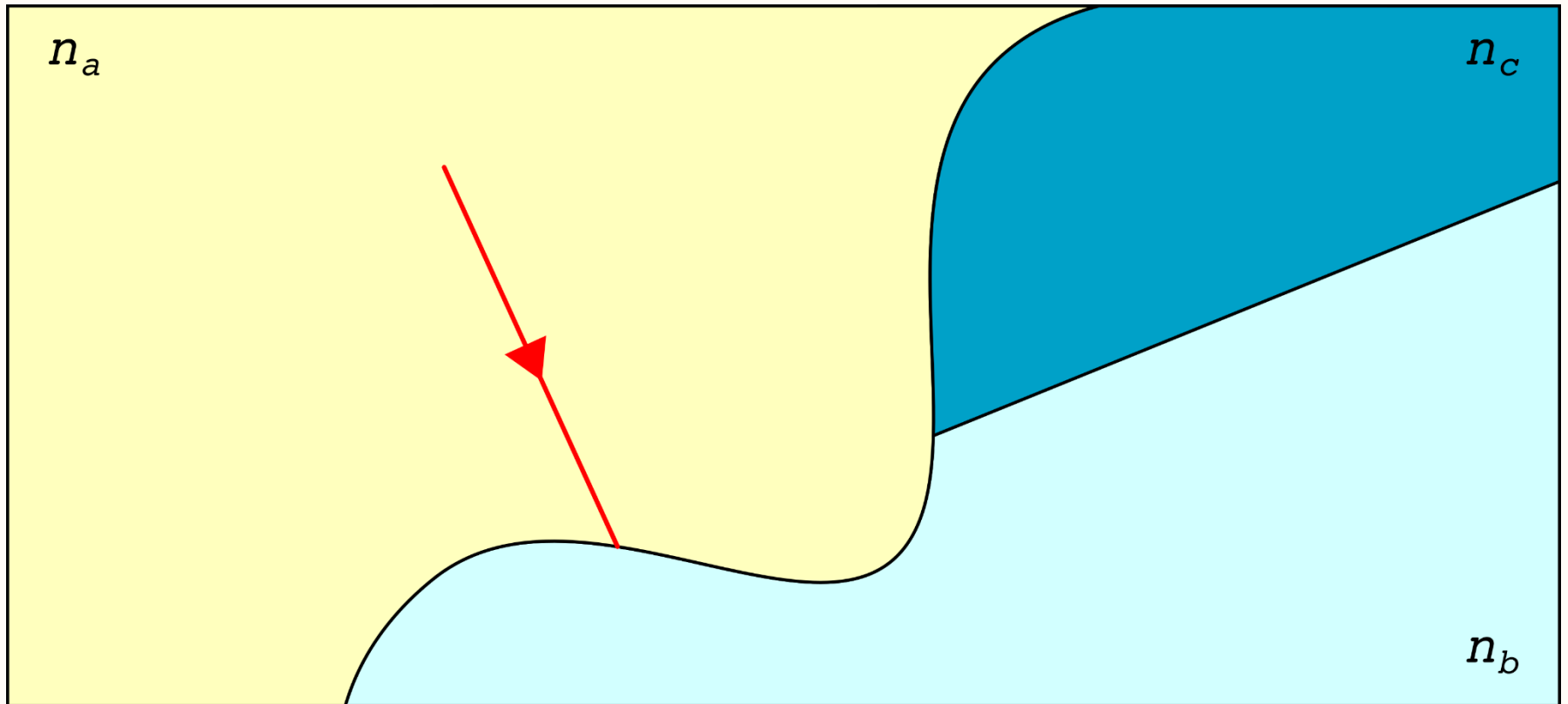
hvor meget bliver reflekteret/  
transmitteret?

+ Fresnels ligninger

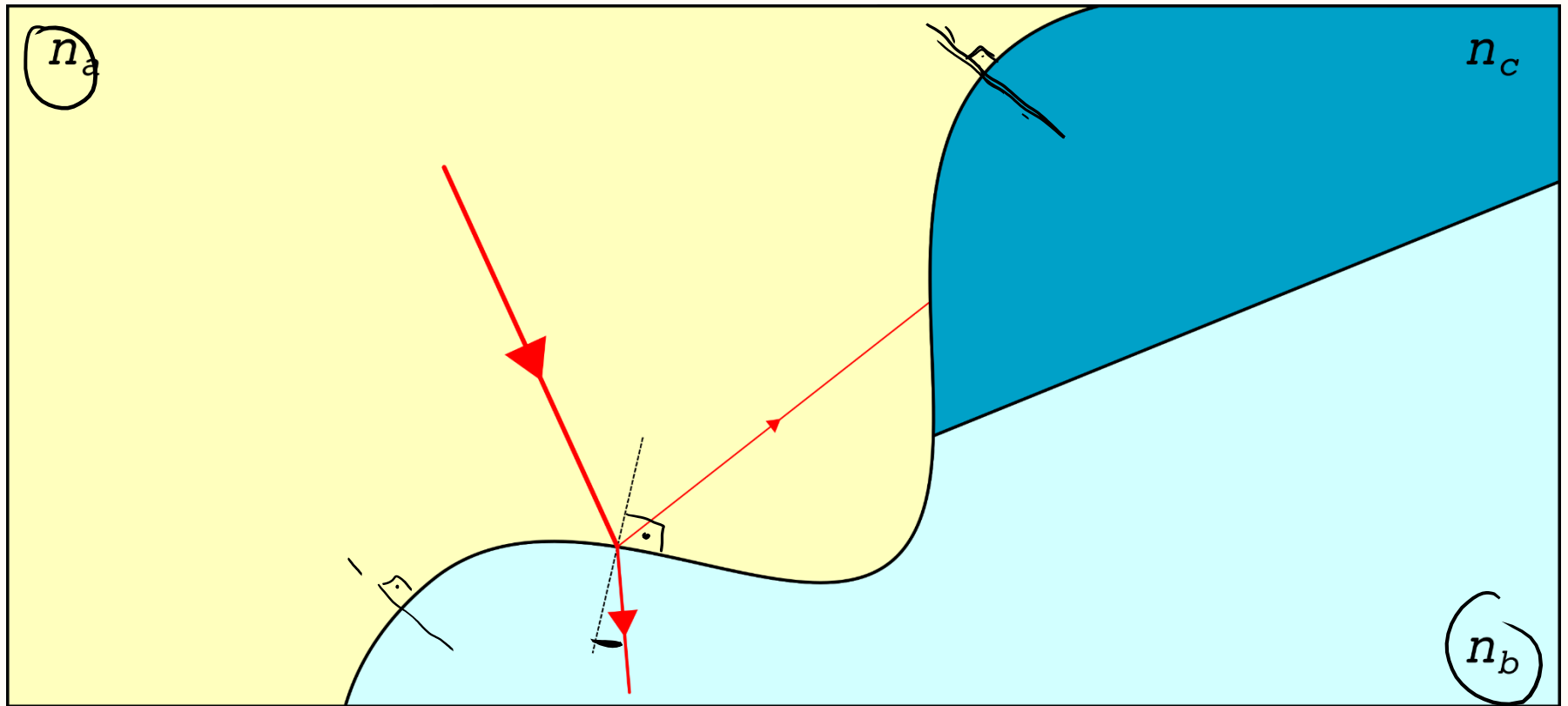
# Snells lov



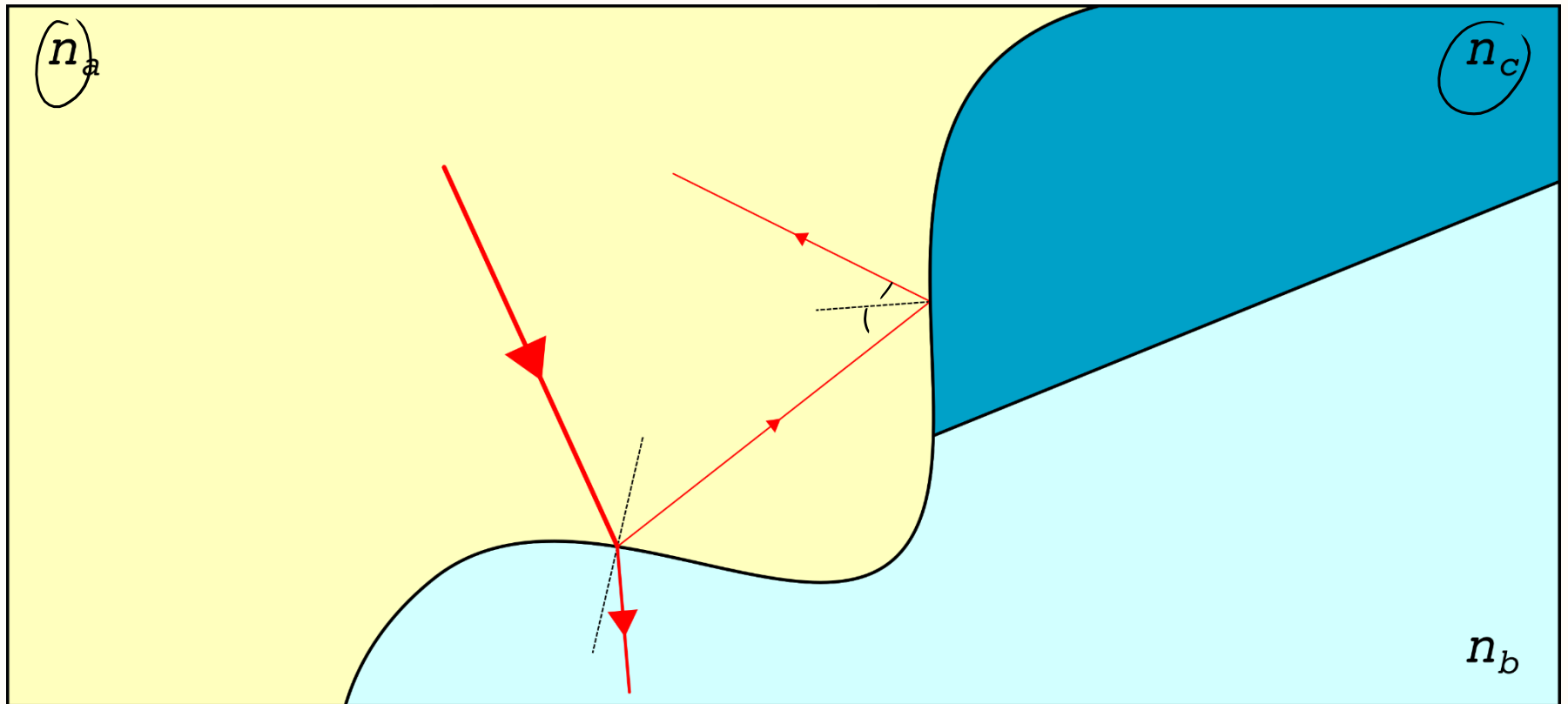
# Geometrisk optikk



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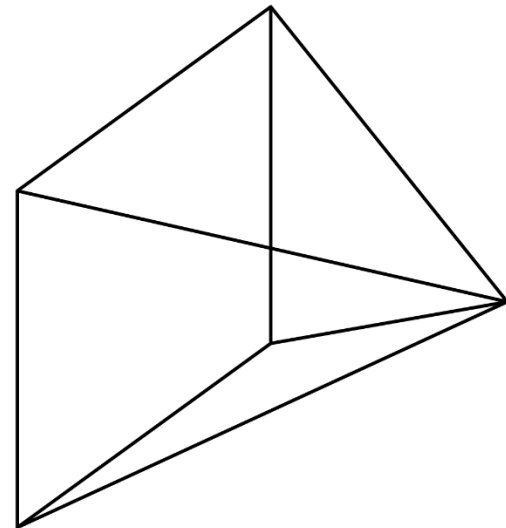


# Geometrisk optikk

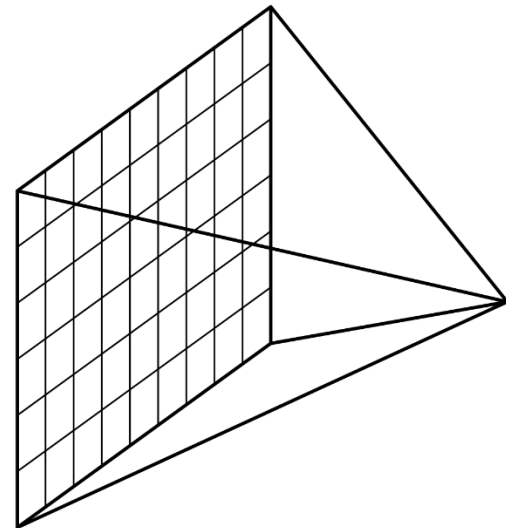




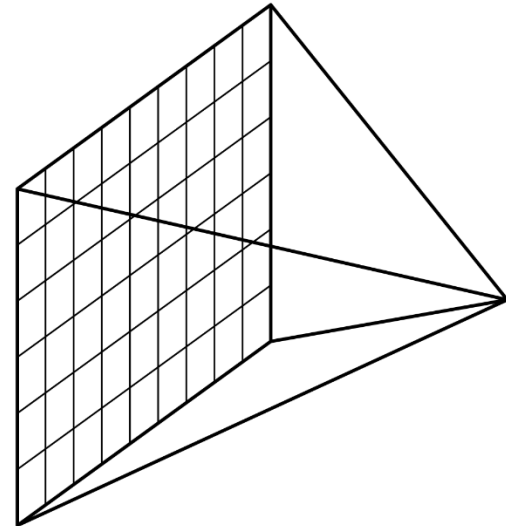
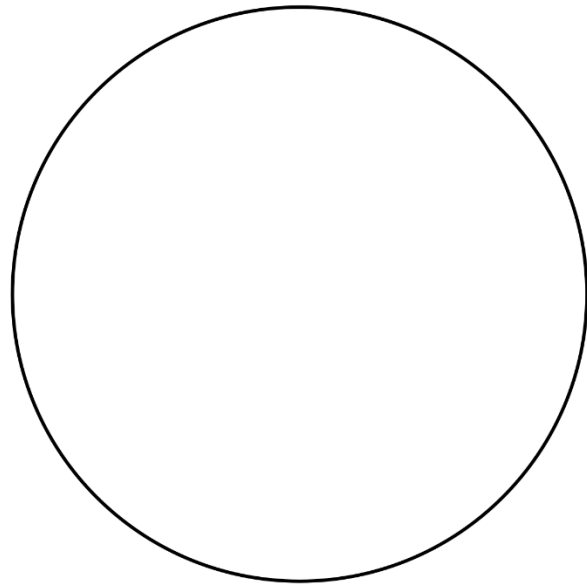
# Ray tracing



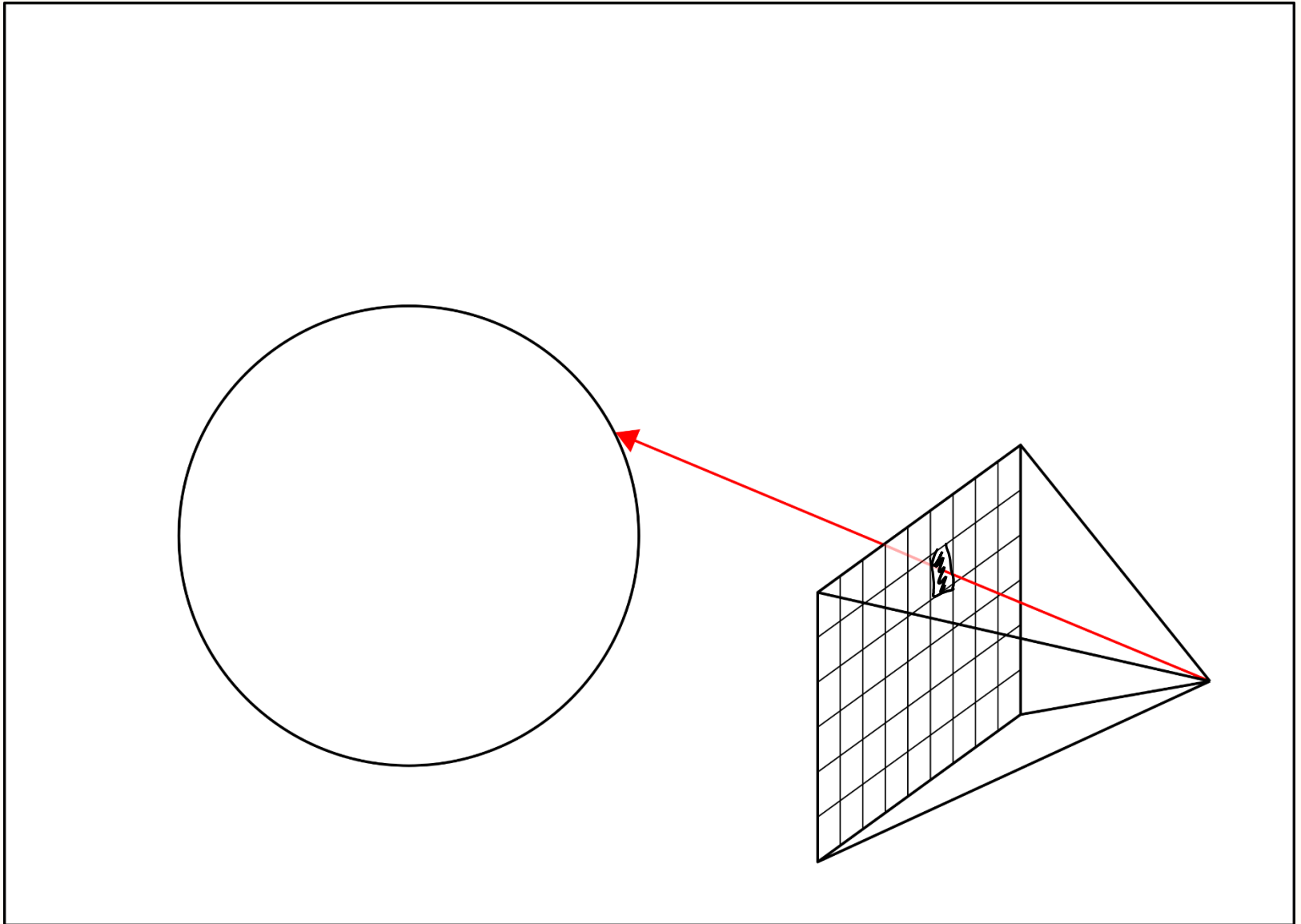
# Ray tracing



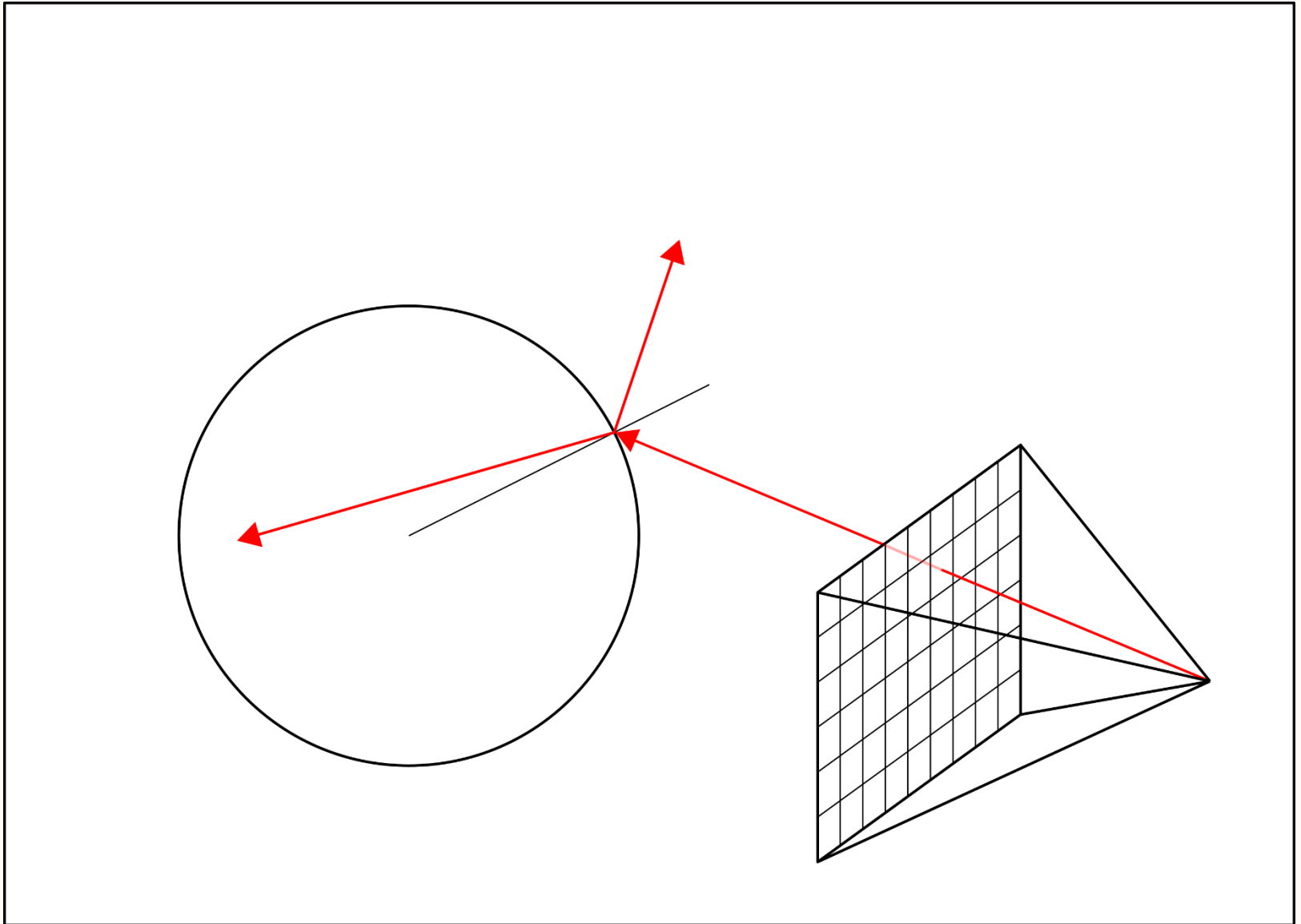
# Ray tracing



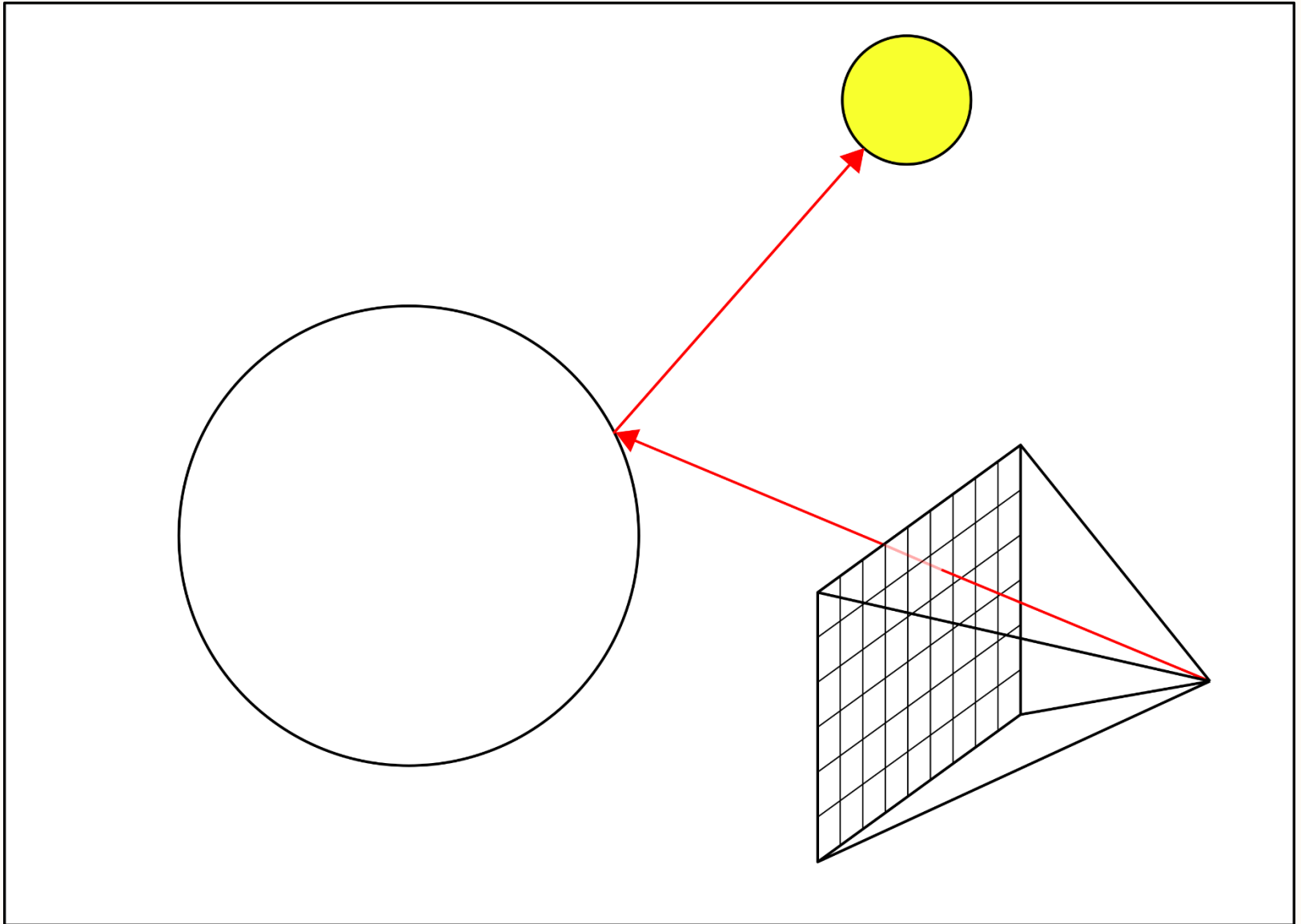
# Ray tracing



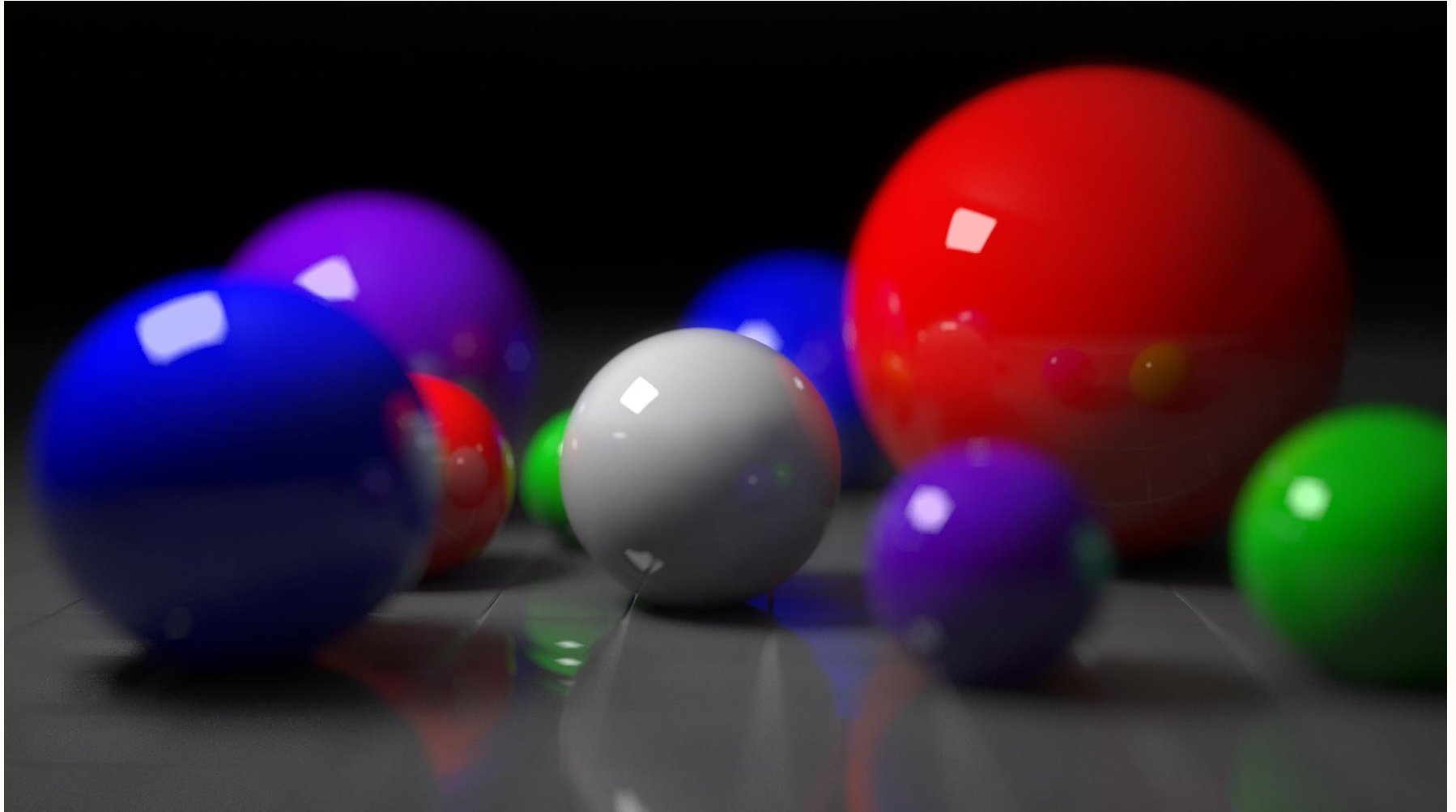
# Ray tracing



# Ray tracing



# Ray tracing



# Ray tracing





# Linser

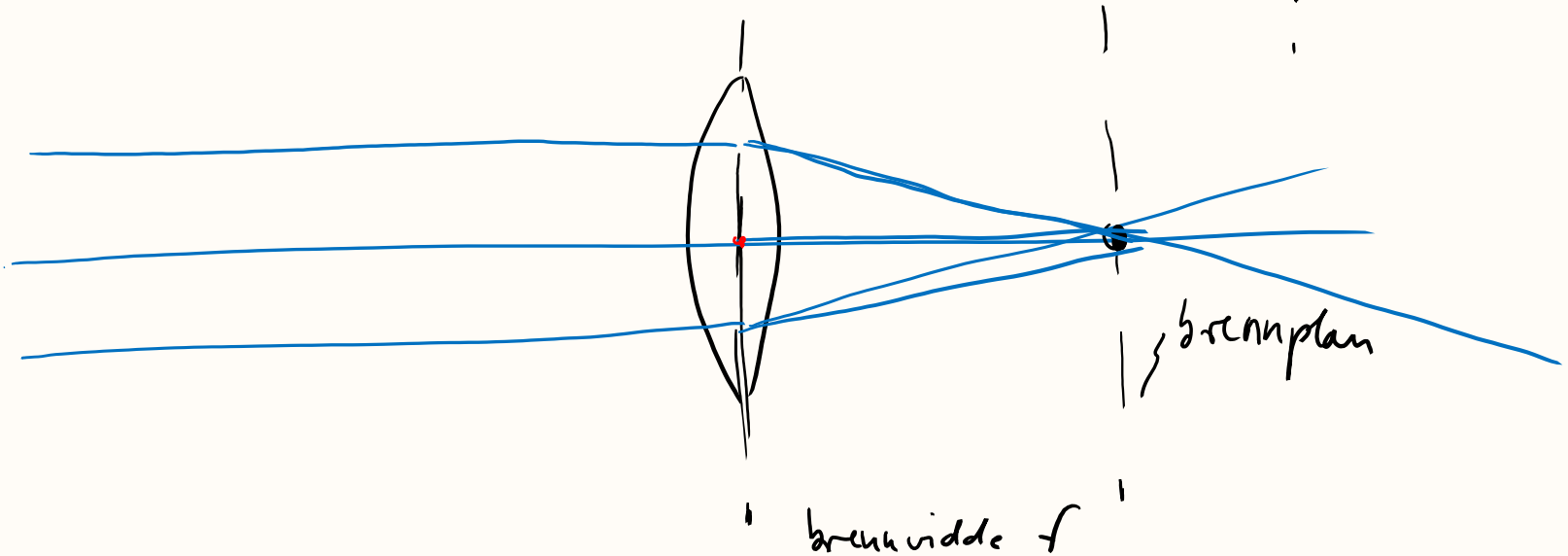
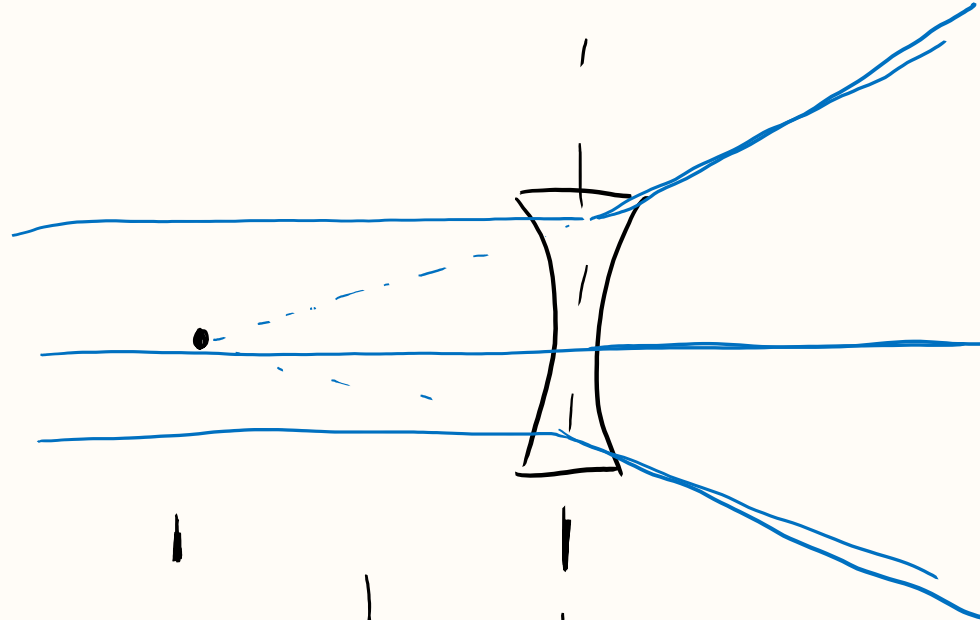
glass  $n_g$



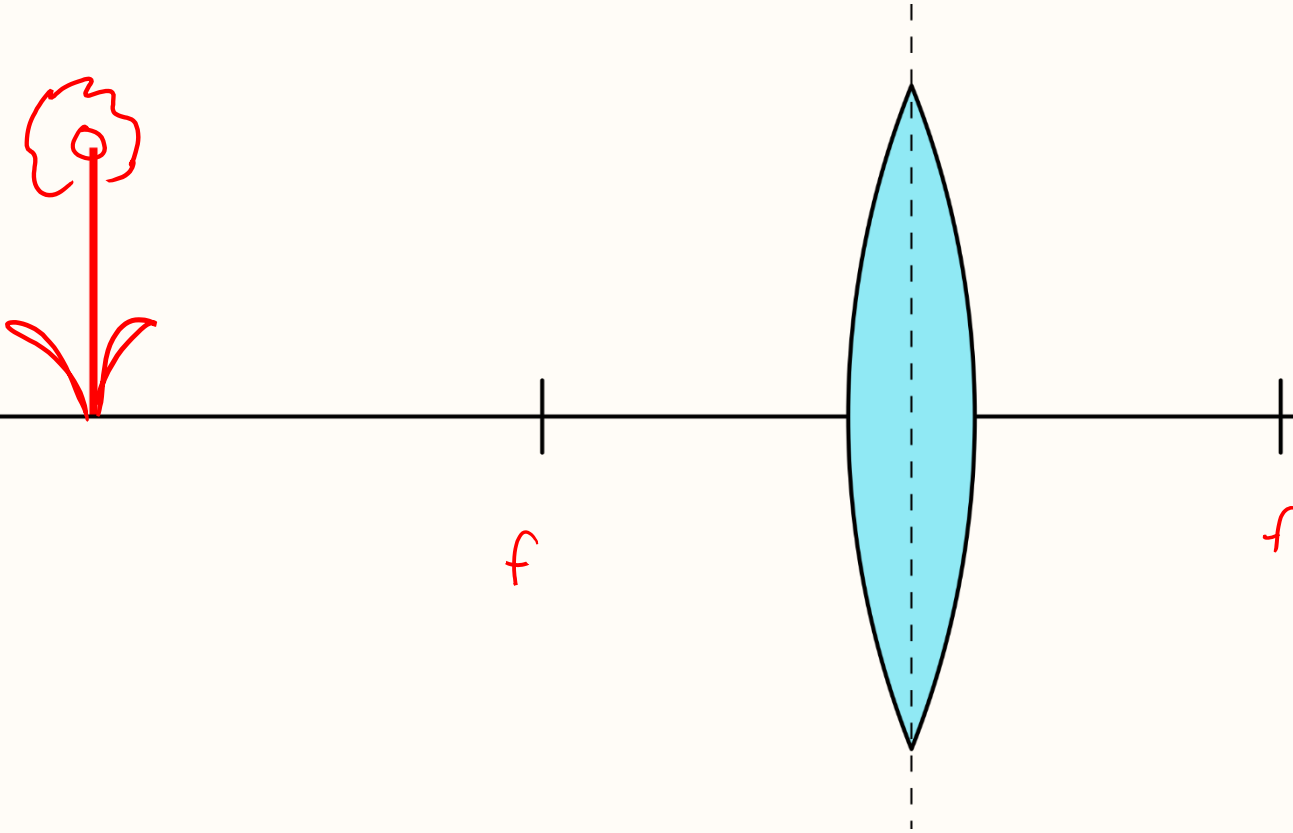
konvex



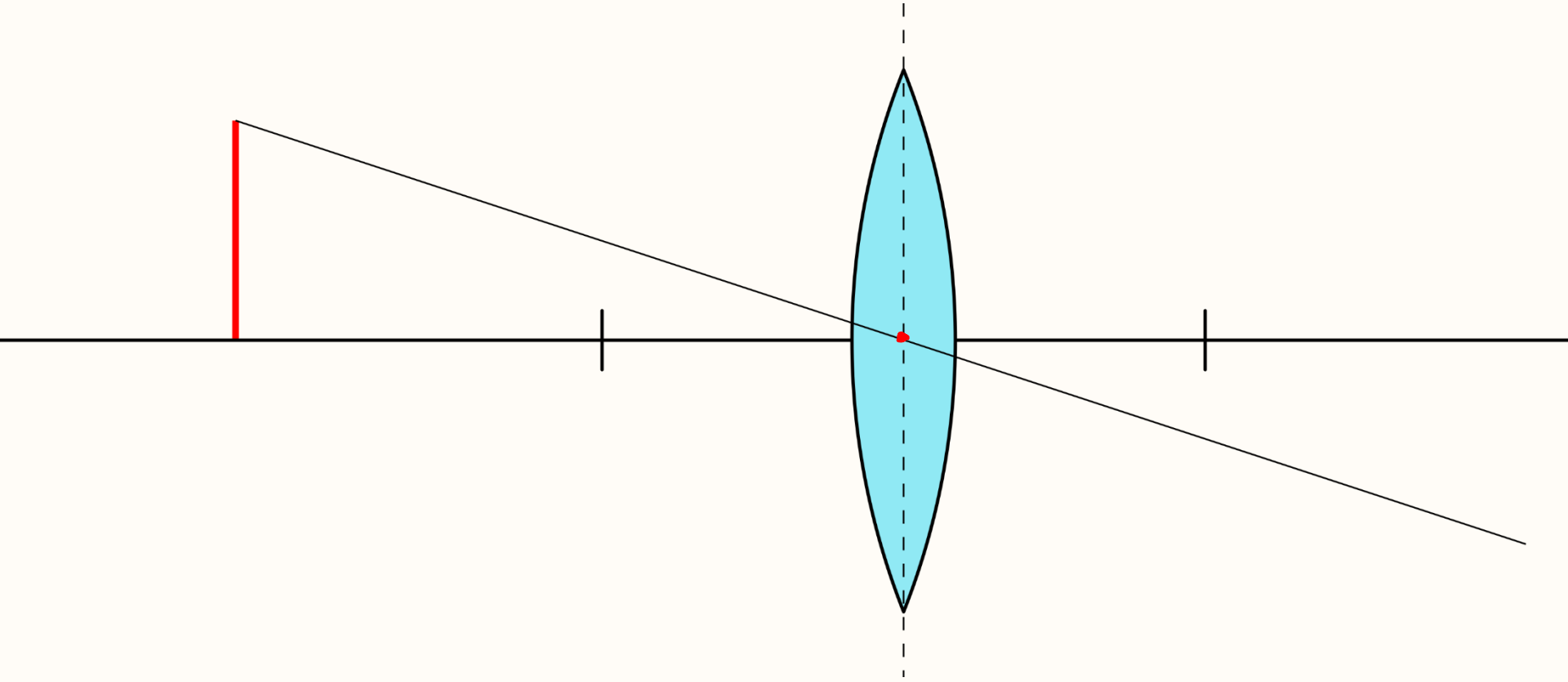
konkav



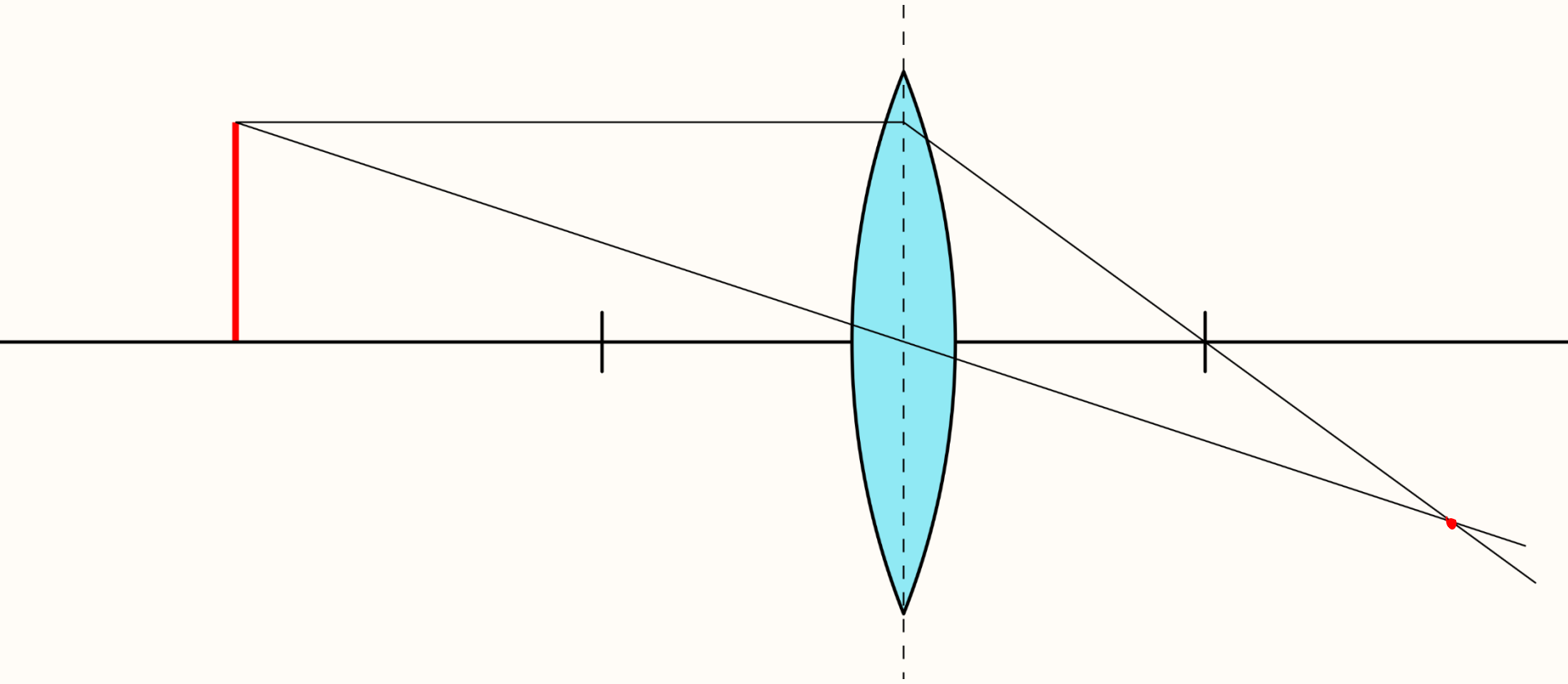
# Konveks linse



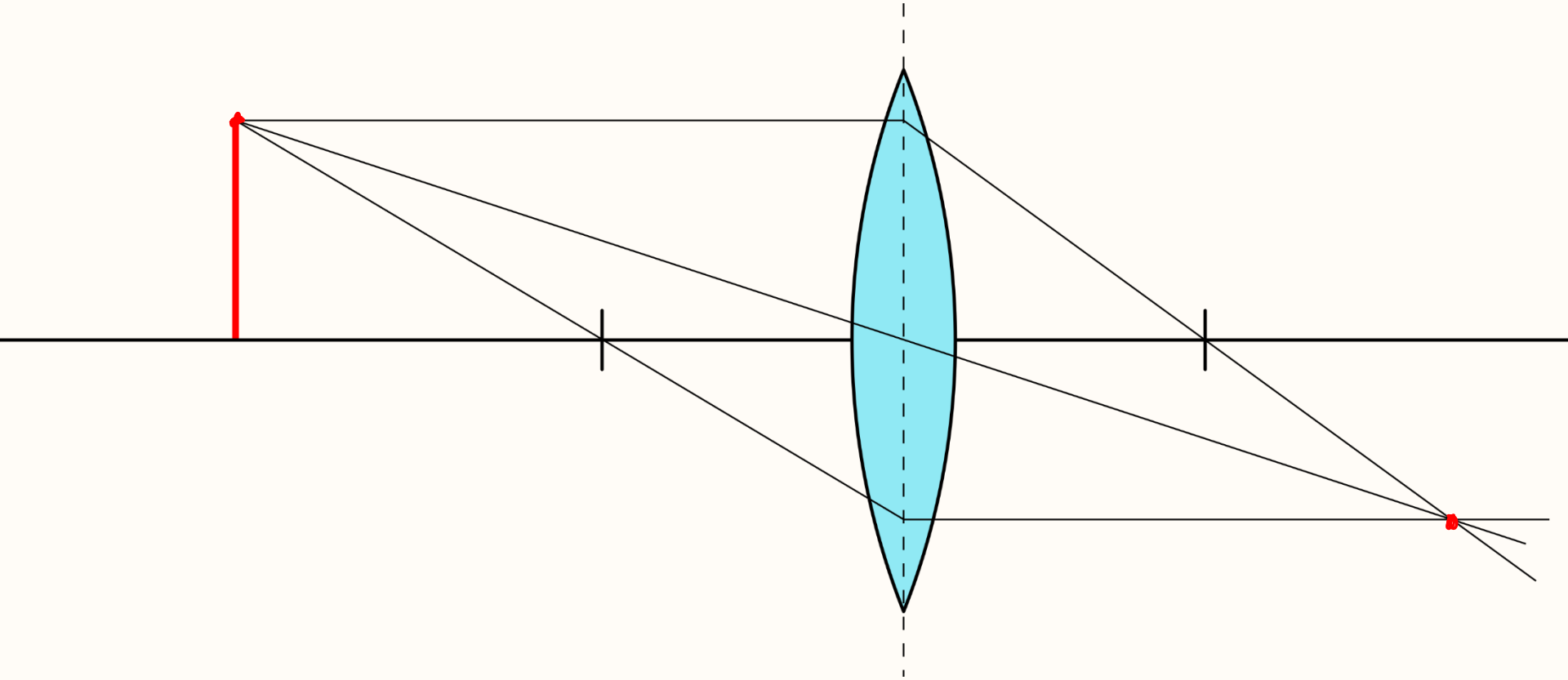
# Konveks linse



# Konveks linse

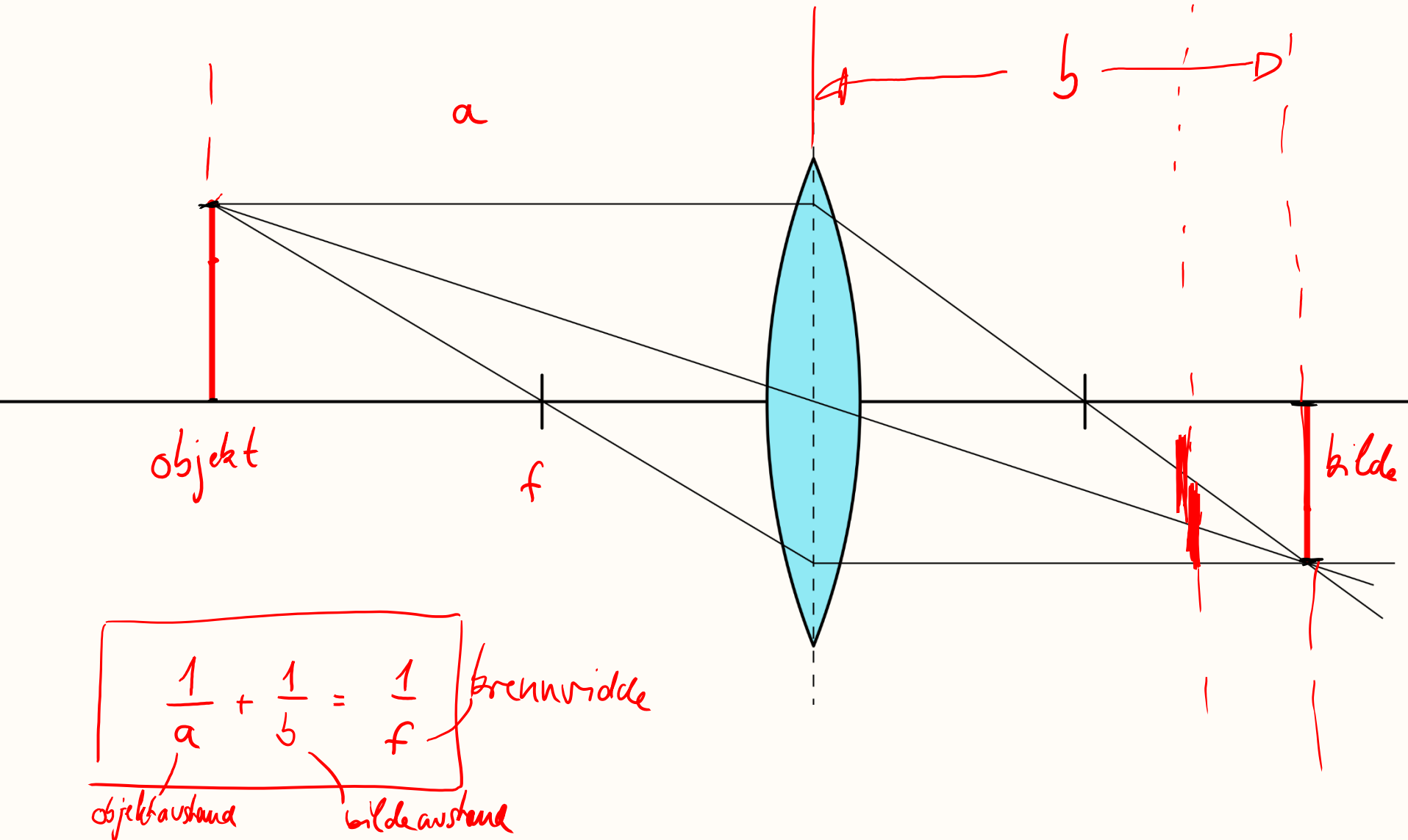


# Konveks linse



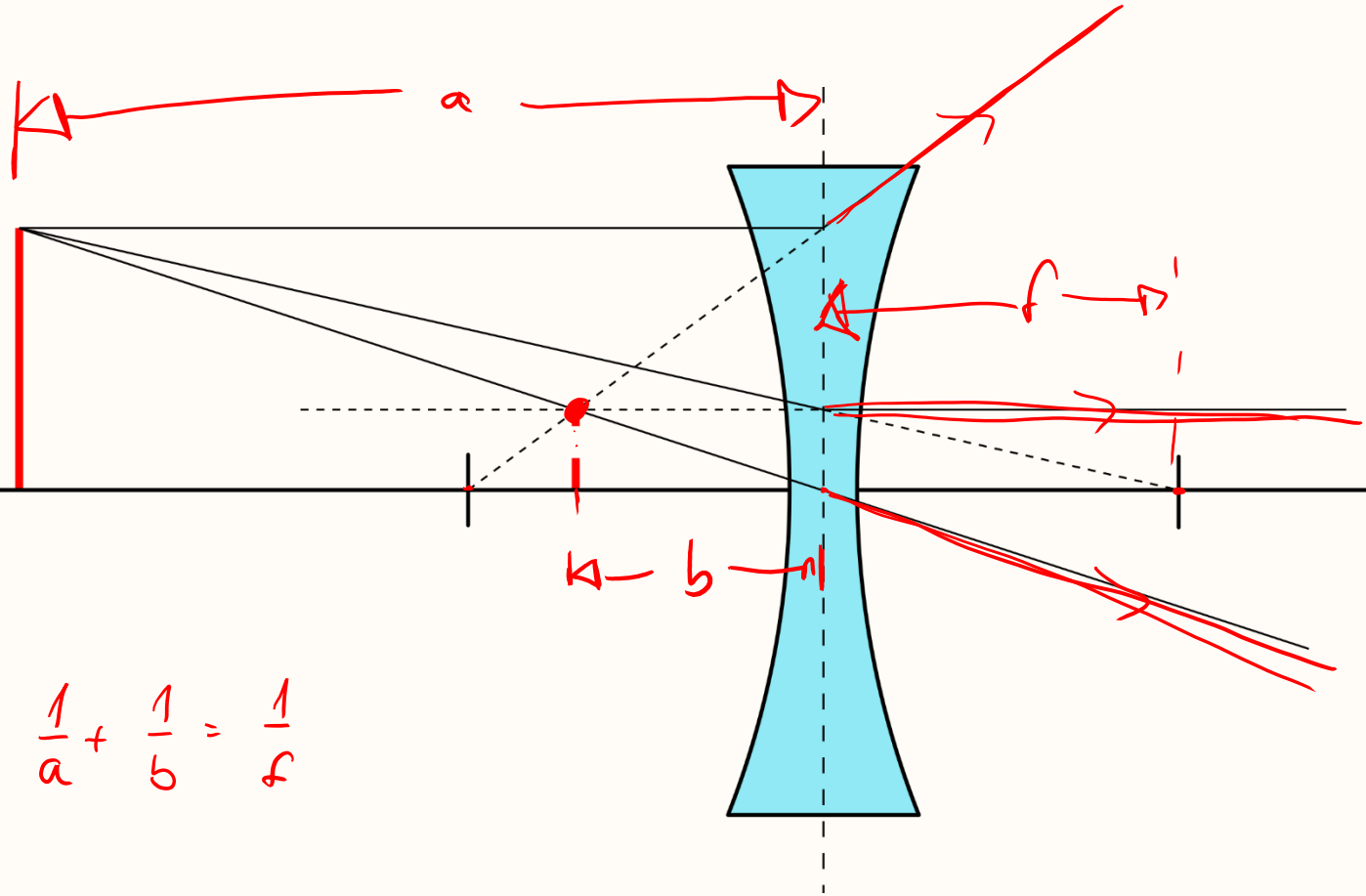
# Konveks linse

$$f > 0$$



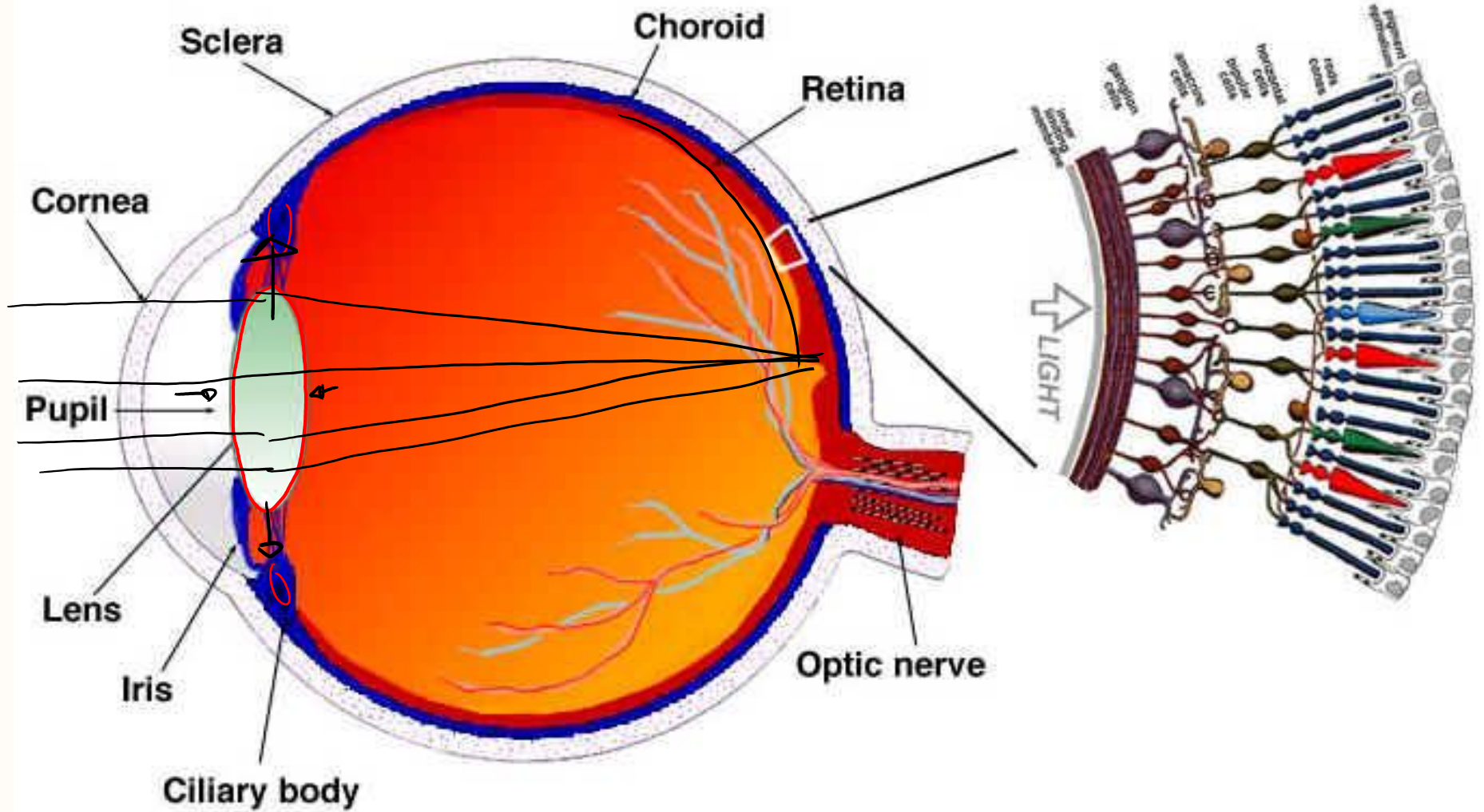
# Konkav linse

$$f < 0$$



$$\frac{1}{a} + \frac{1}{b} = \frac{1}{f}$$

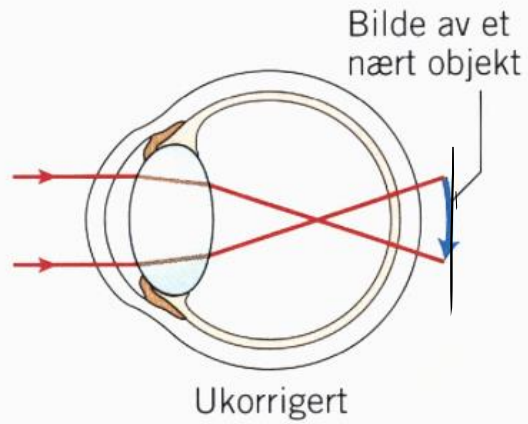
# Øyet



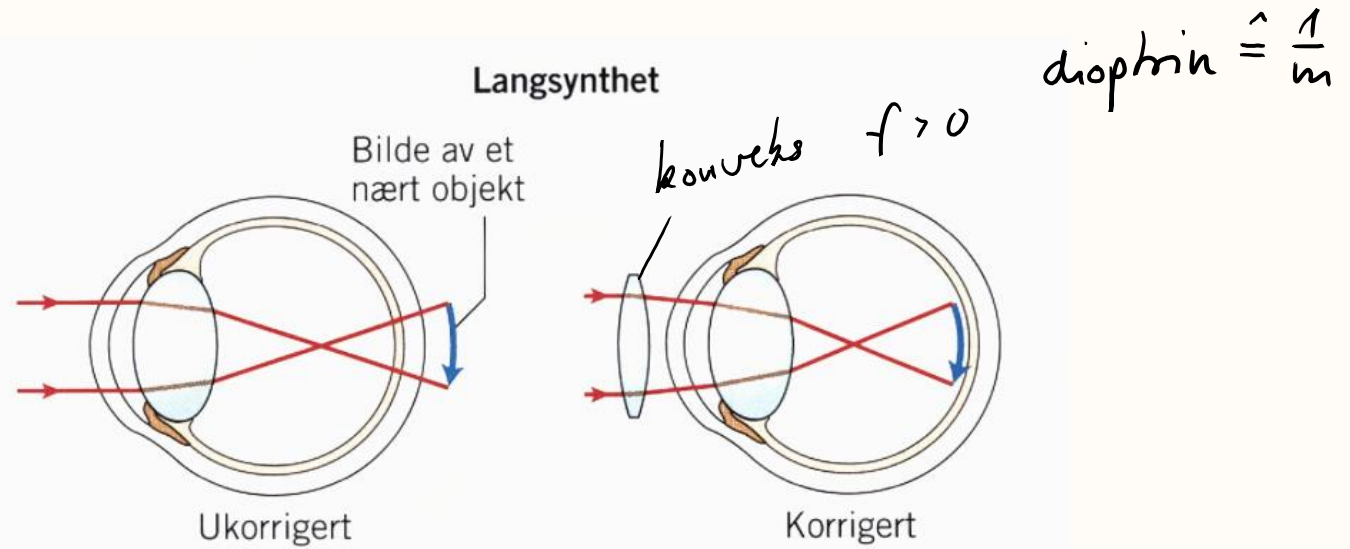


# Briller

Langsynthet

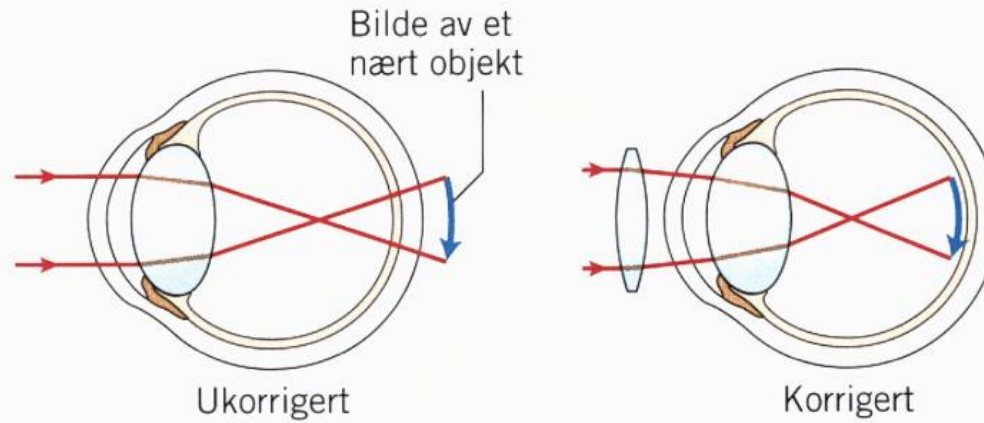


# Briller

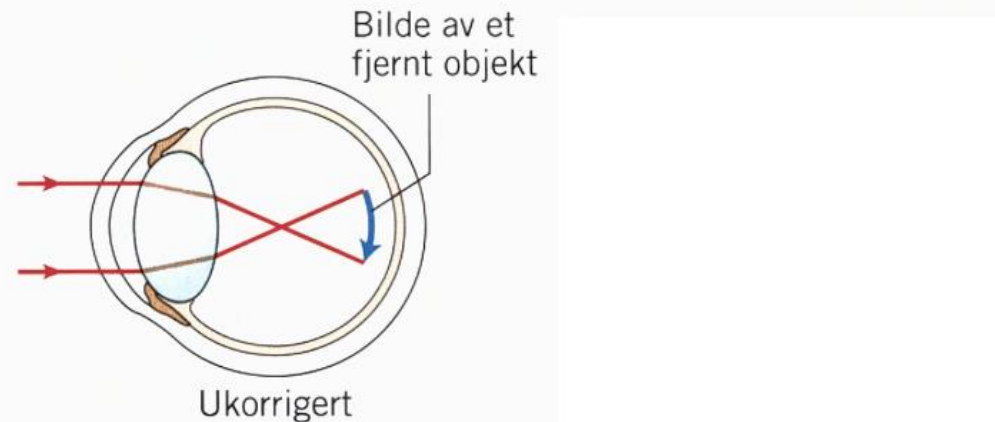


# Briller

## Langsynthet

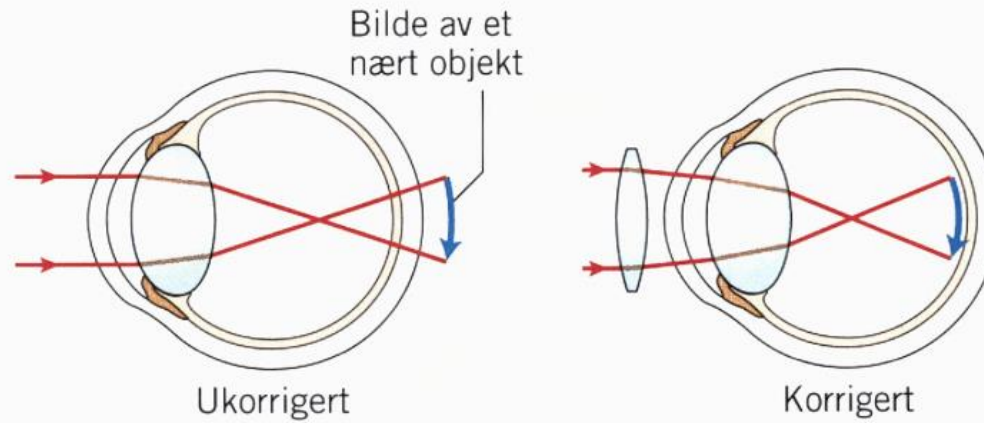


## Nærsynthet

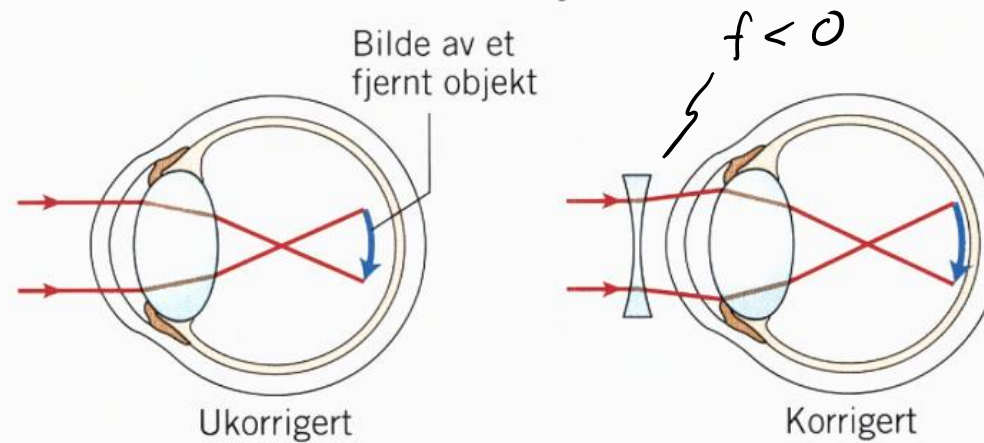


# Briller

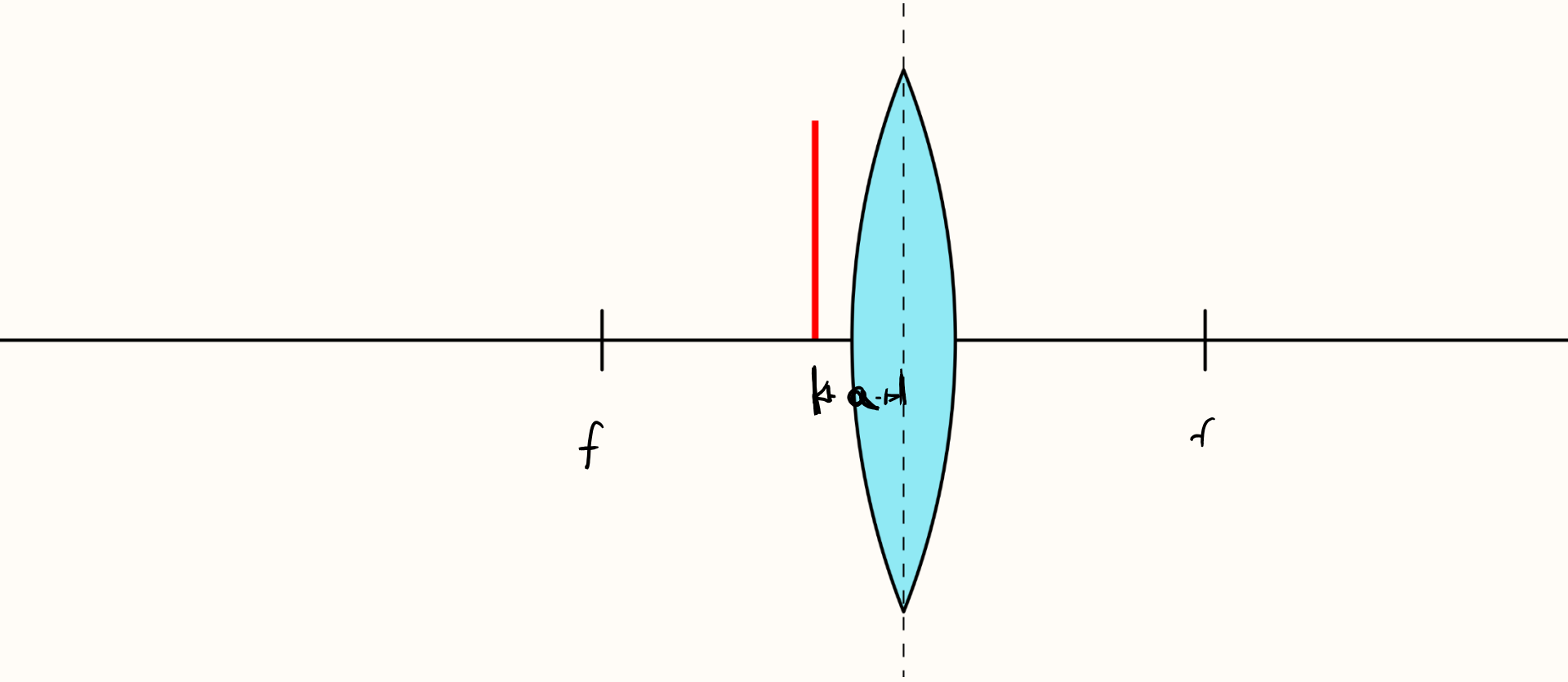
## Langsynthet



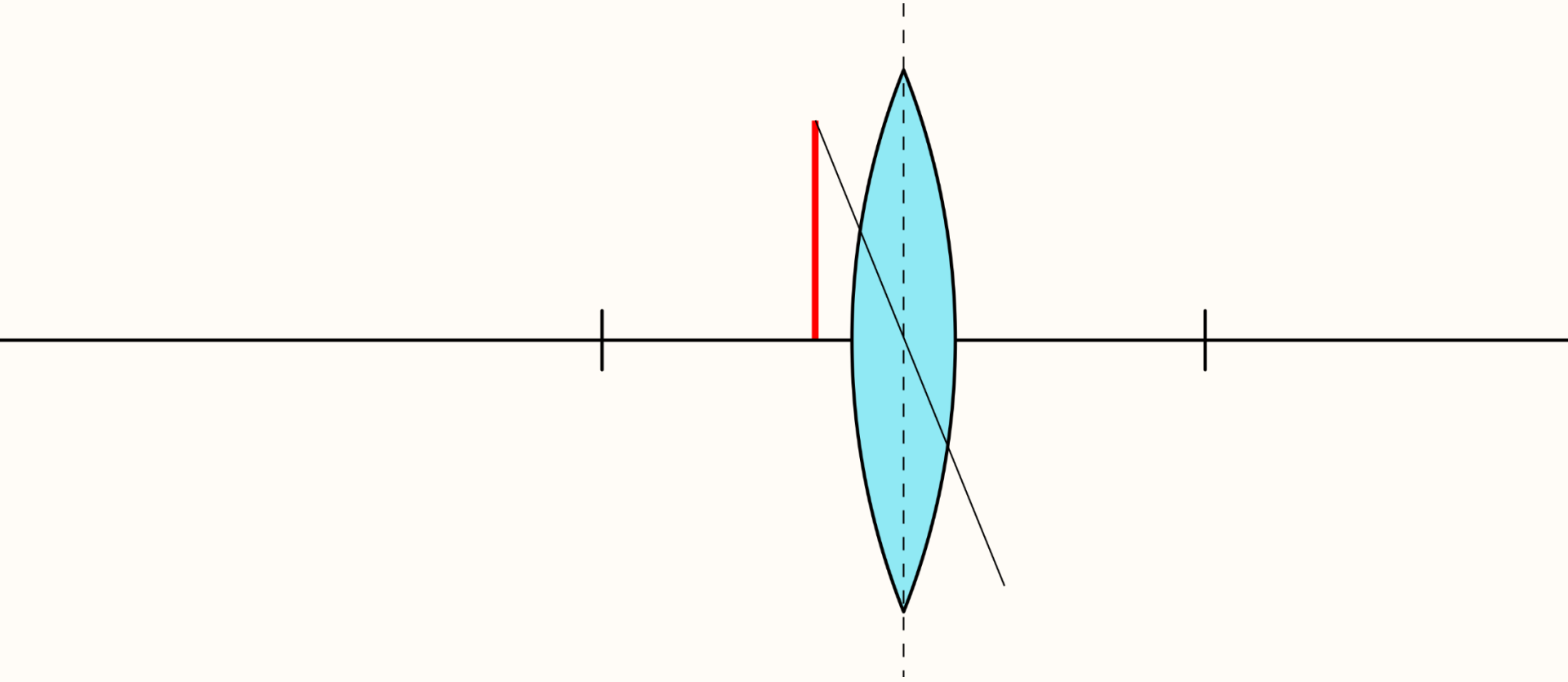
## Nærsynthet



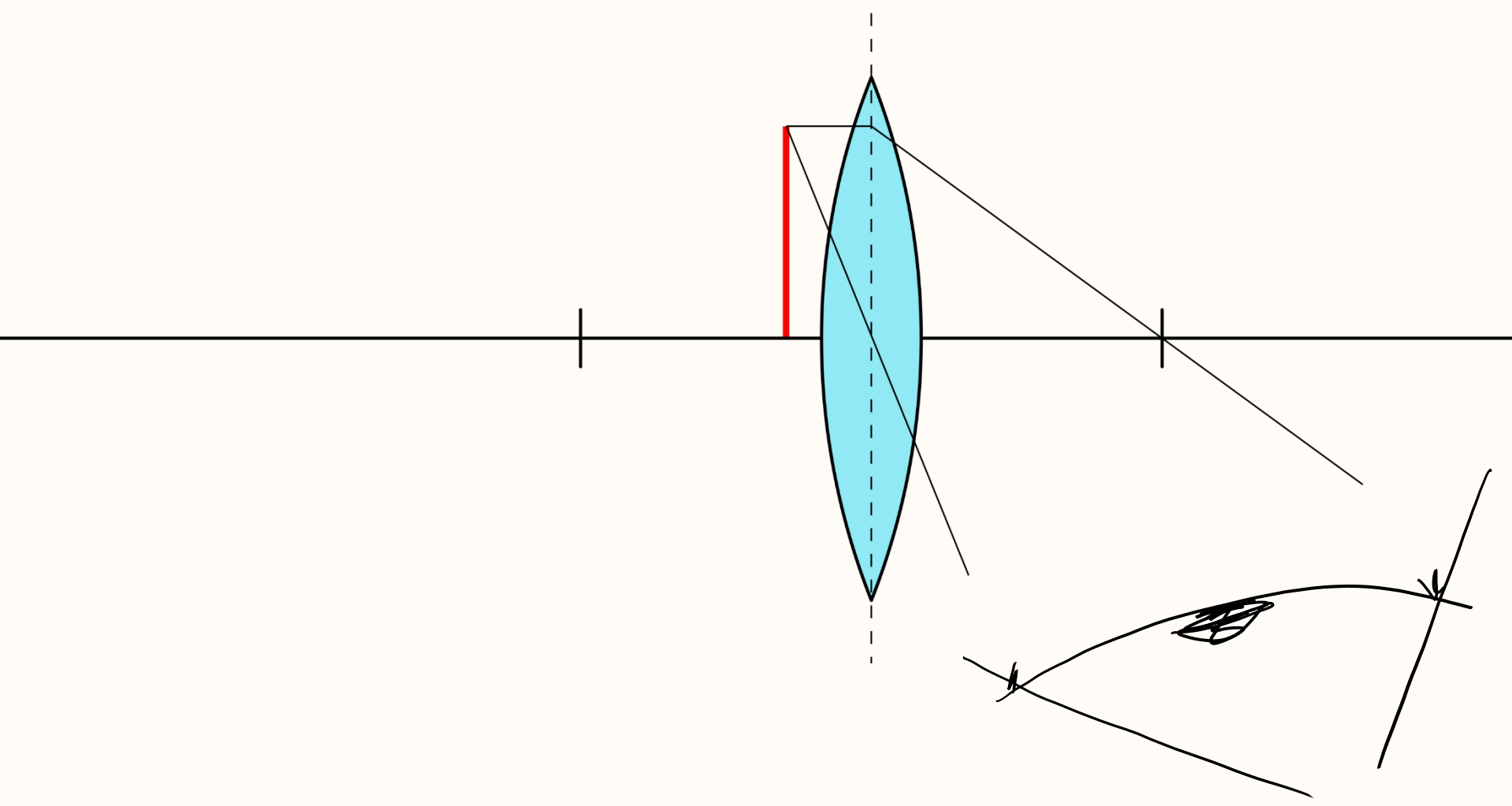
# Lupe



# Lupe



# Lupe



# Lupe

