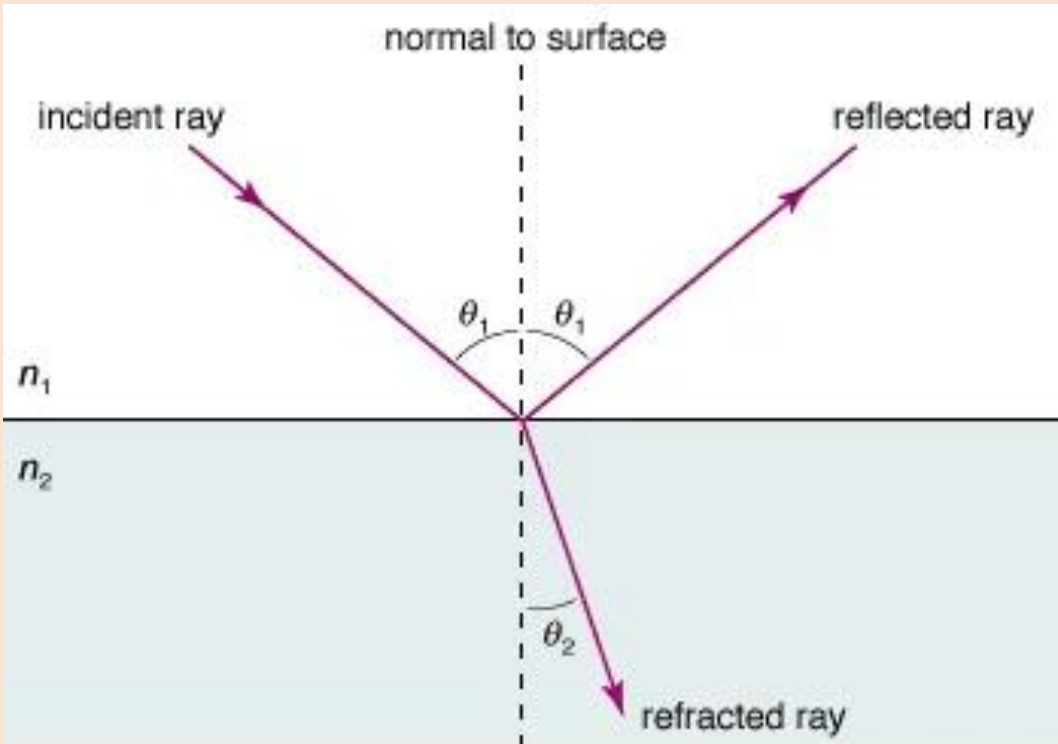


A woman with short dark hair, glasses, and a patterned scarf is looking directly at the camera with a surprised expression. She is standing in a room with a patterned wall and a bulletin board covered in papers and photos. The scene is dimly lit, suggesting an indoor setting at night or in low light.

**INVISIBILITY OIL**

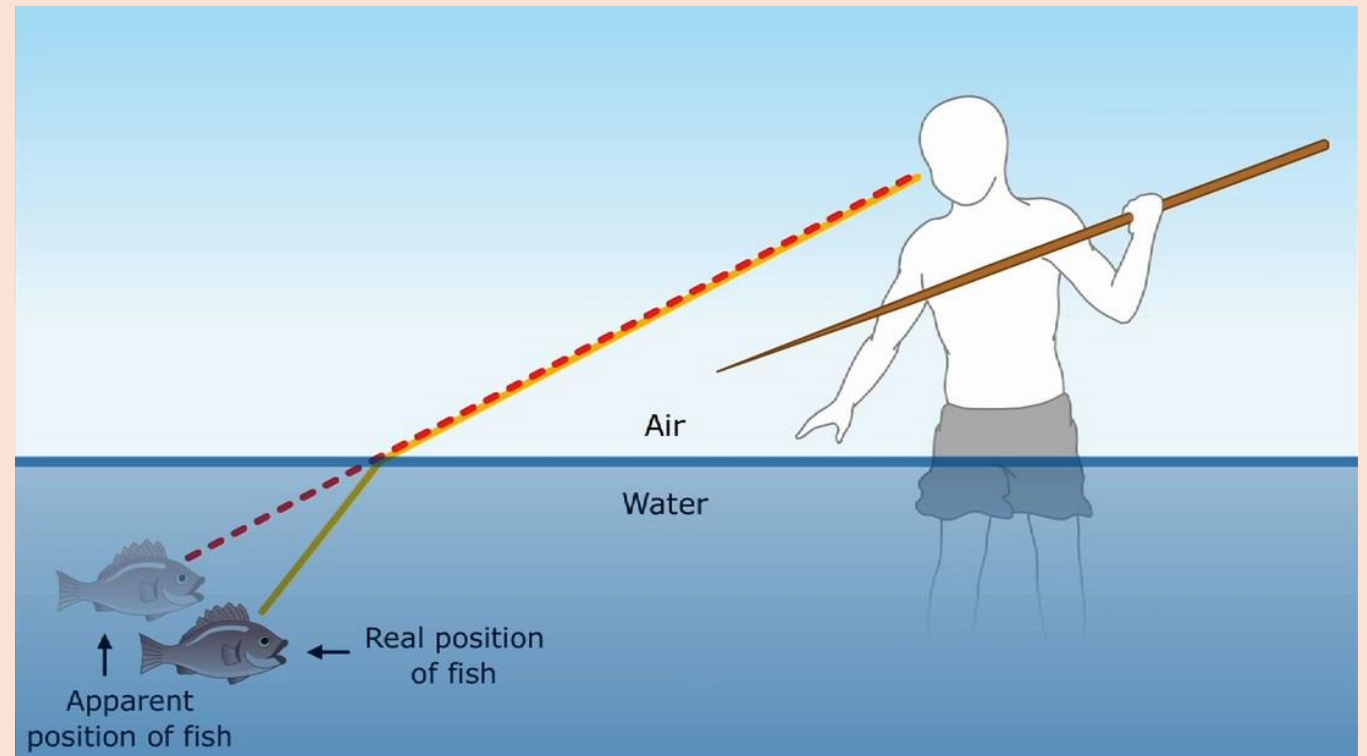
# Reflection & Refraction of light



REFRACTION INDEX:  $n = \frac{c}{v}$

$v$ : speed of light in a medium

$c$ : speed of light in vacuum ( $3 \cdot 10^8 \text{ m/s}$ )



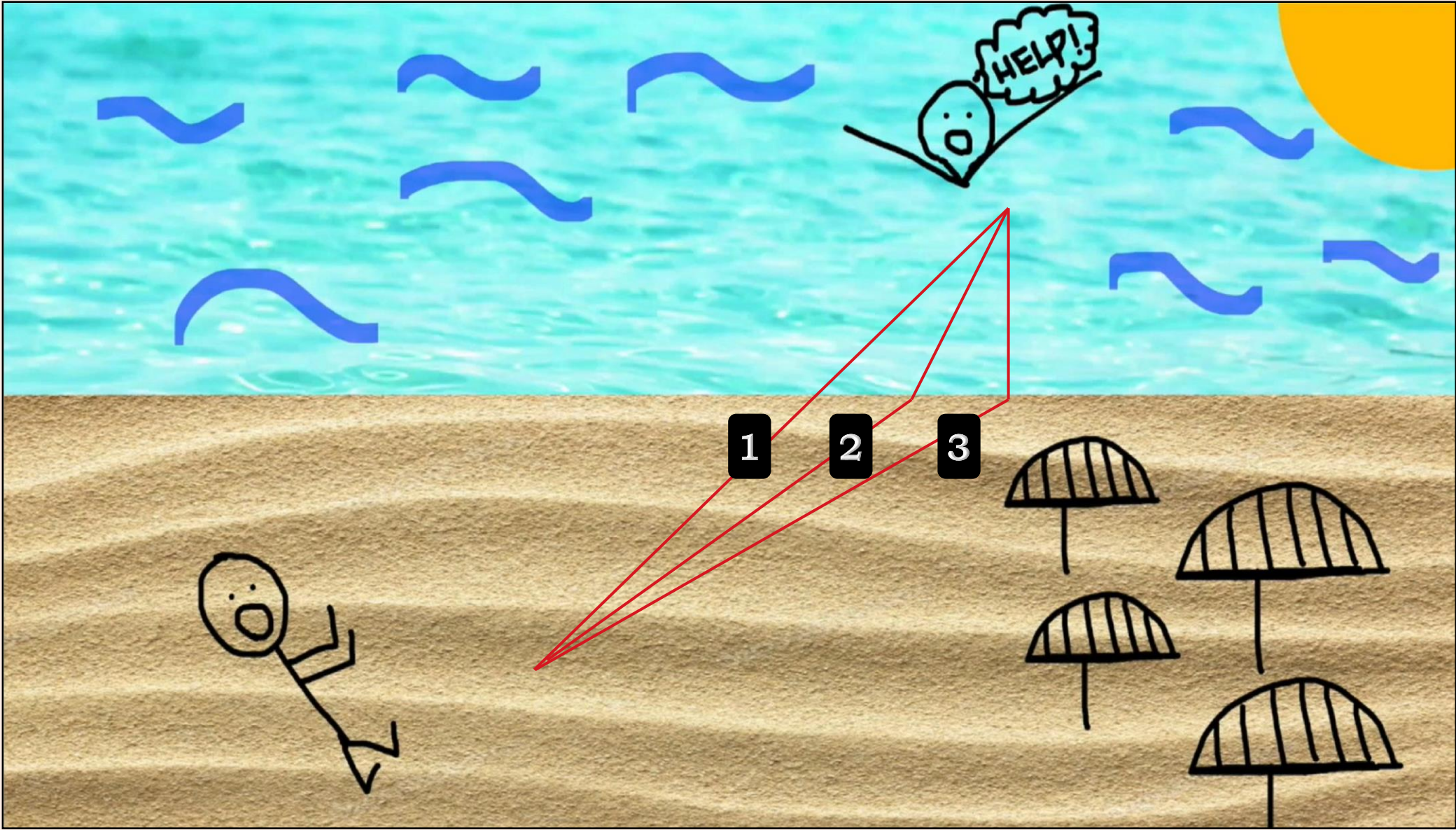
...let's fix the idea...

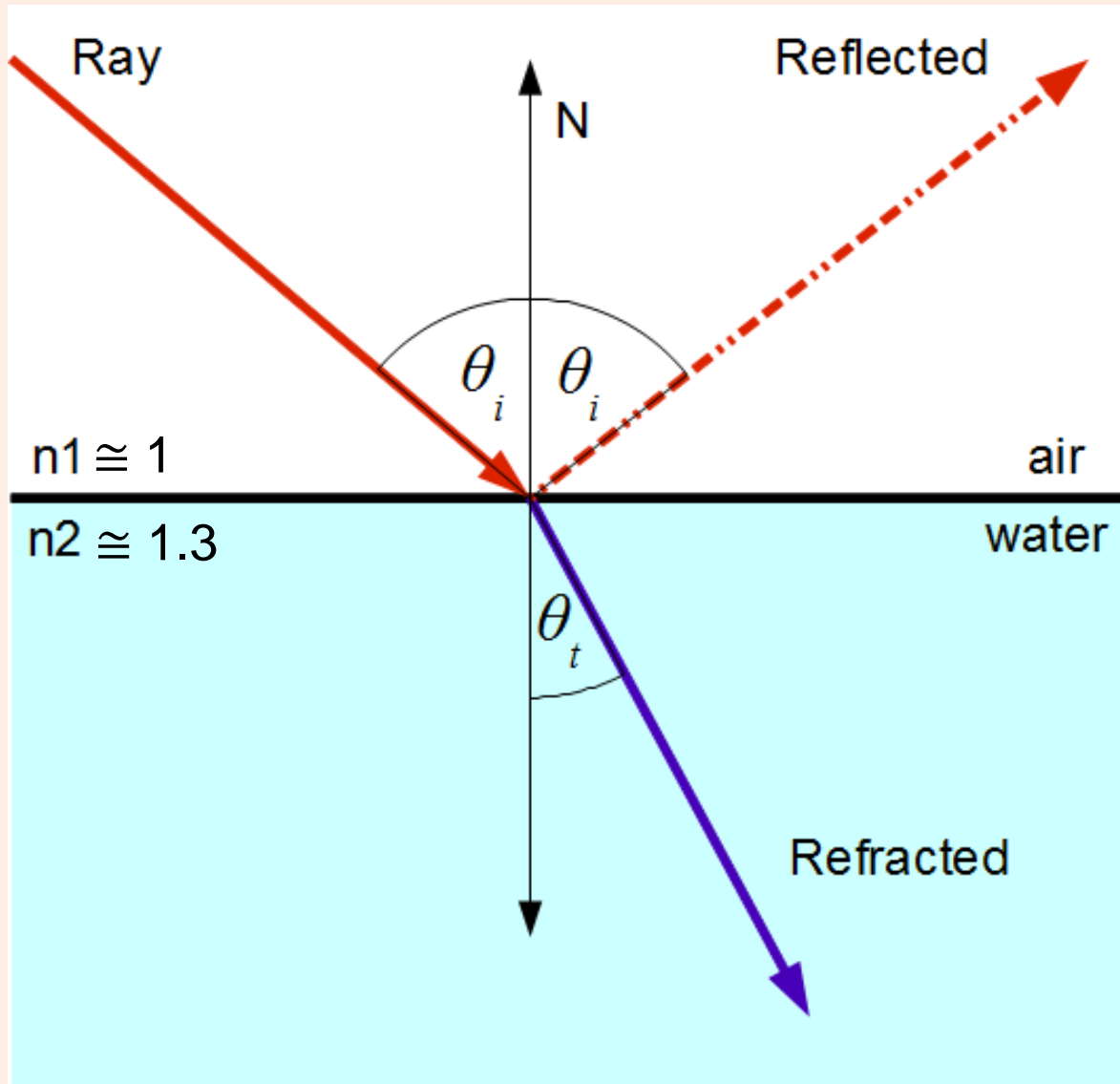


Predator, 1987

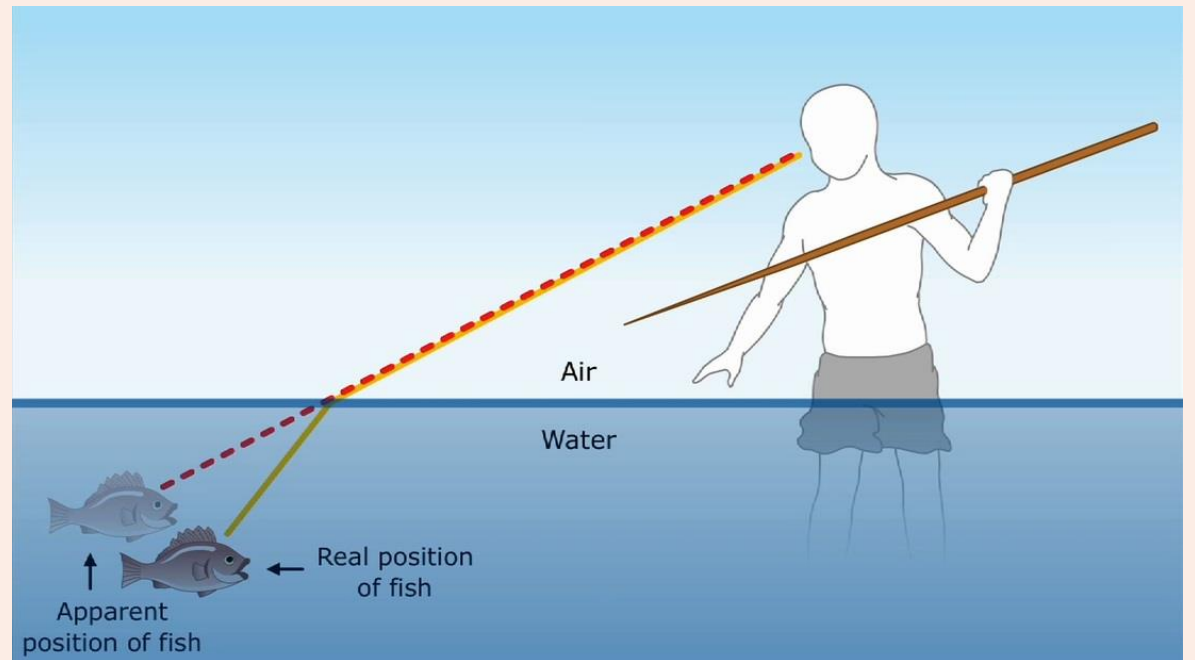
Perfect example of *refraction* with *no reflection*: we can't see well defined contours (no reflection), but we can distinguish a disturbance of the background (refraction).

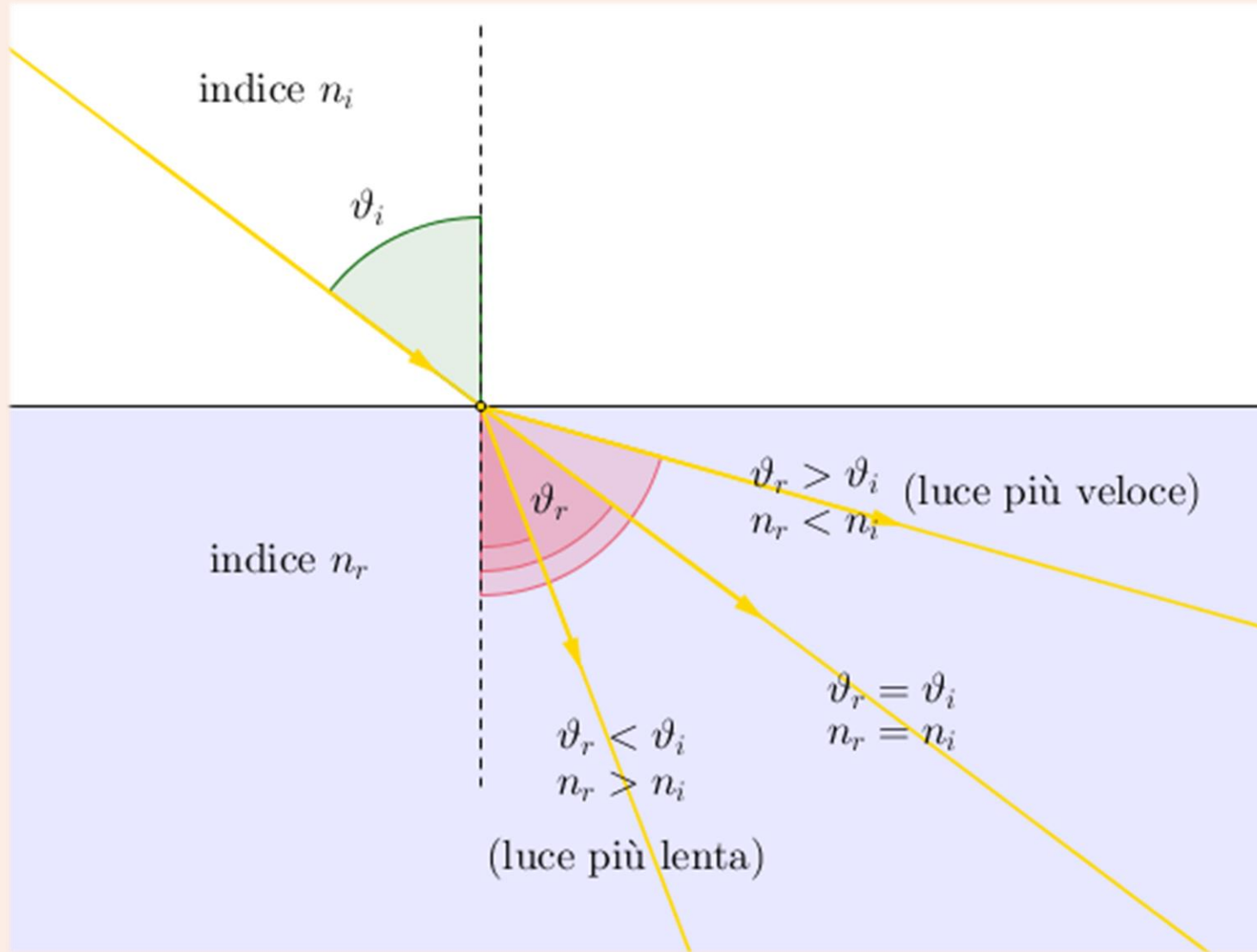
# *Fermat's principle – Feynmann explanation*





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





## SNELL'S LAW

$$n_i \sin \vartheta_i = n_r \sin \vartheta_r$$

# A particular case: $n_r = n_i$

## Tools:

- Two glass jars of different sizes
- Soybean oil



## Result:

**SPOILER  
ALERT!**