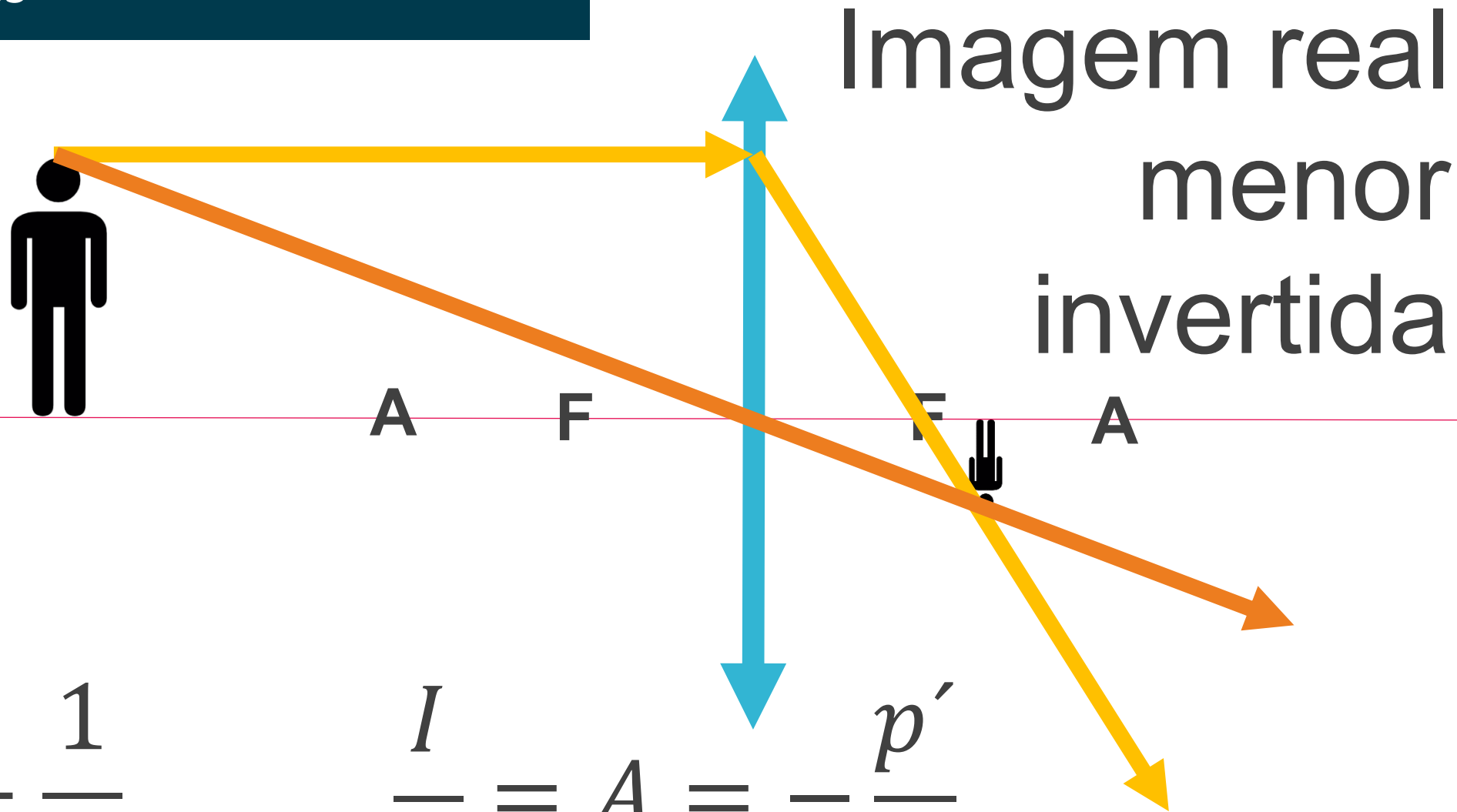


Lentes esféricas



Prof. Jadoski
Física

Lentes convergentes



$$\frac{1}{f} = \frac{1}{p} + \frac{1}{p'}$$

$$\frac{I}{O} = A = -\frac{p'}{p}$$

Lentes convergentes

$$\frac{1}{f} = \frac{1}{p} + \frac{1}{p'}$$



A

F

F

A

$$\frac{1}{20} = \frac{1}{60} + \frac{1}{p'}$$

$$P' = 30\text{cm}$$

$$F = 20\text{cm}$$

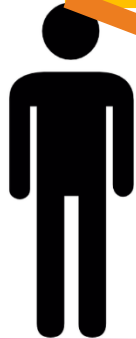
$$p = 60\text{cm}$$

$$p' = ? \quad A = ?$$



Lentes convergentes

$$\frac{I}{O} = A = -\frac{p'}{p}$$



A

F

F

A

$$A = -\frac{(30)}{(60)}$$

$$A = -\frac{1}{2}$$

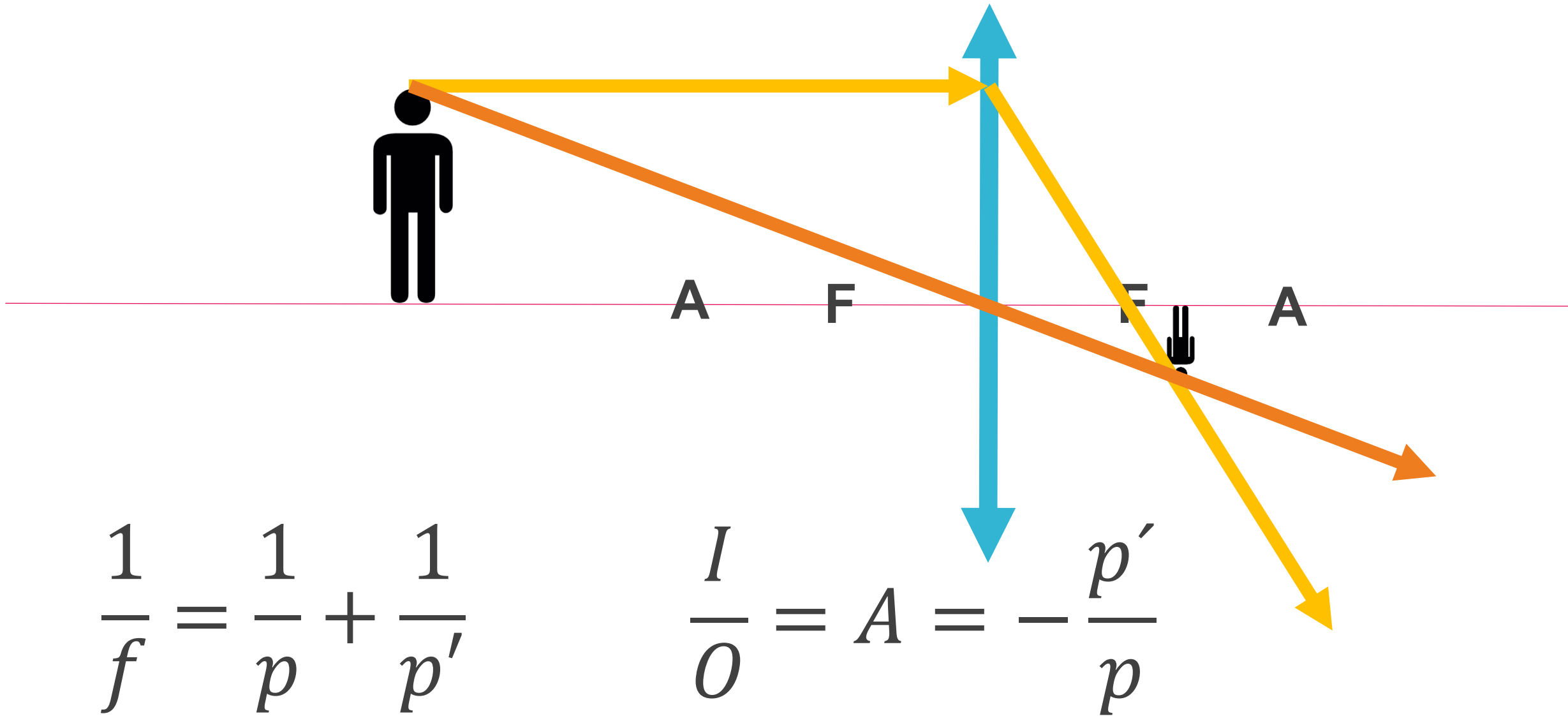
$$F = 20\text{cm}$$

$$p = 60\text{cm}$$

$$p' = ? \quad A = ?$$

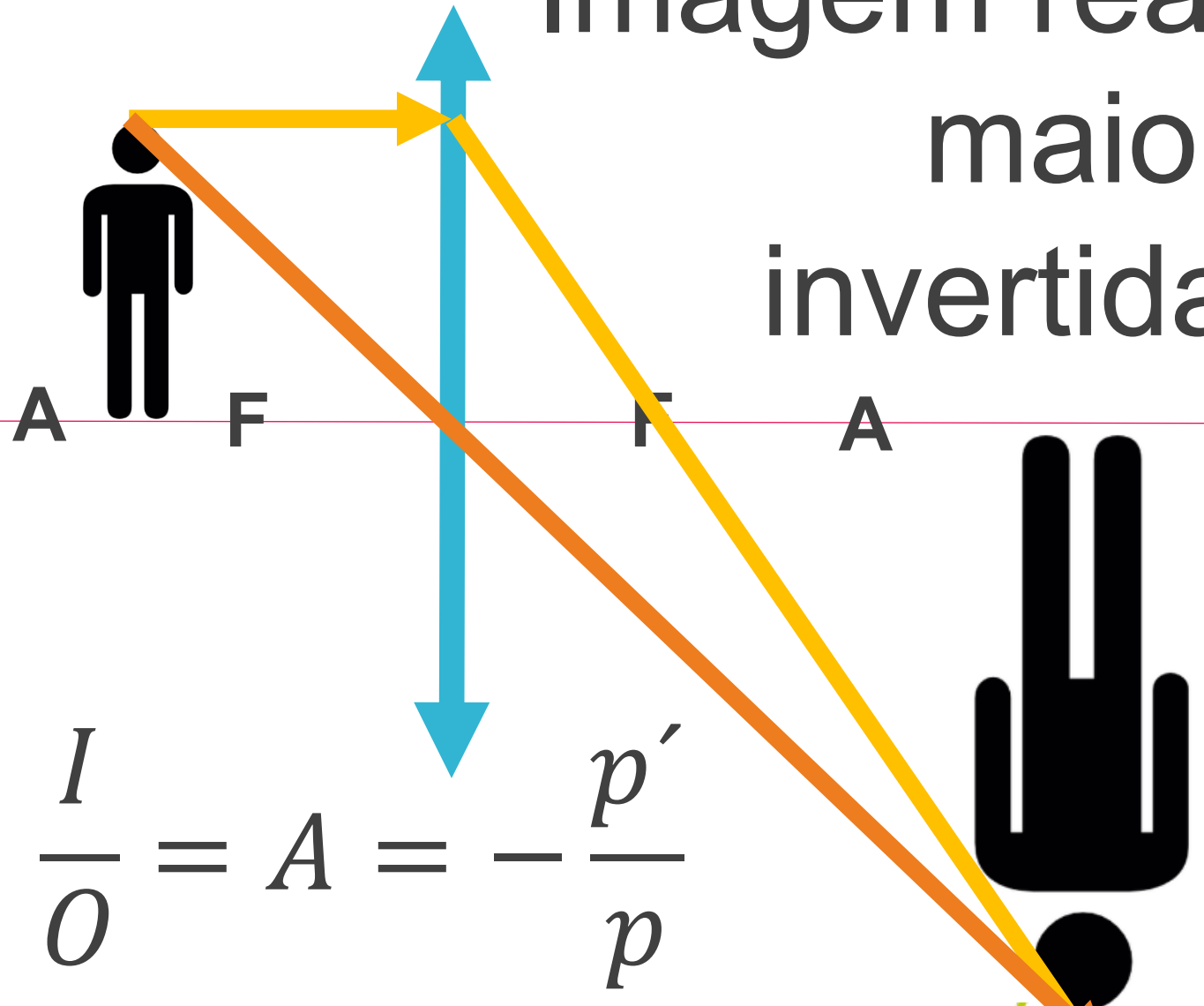
$$P' = 30\text{cm}$$

Lentes convergentes



Lentes convergentes

Imagem real
maior
invertida



$$\frac{1}{f} = \frac{1}{p} + \frac{1}{p'}$$

$$\frac{I}{O} = A = -\frac{p'}{p}$$

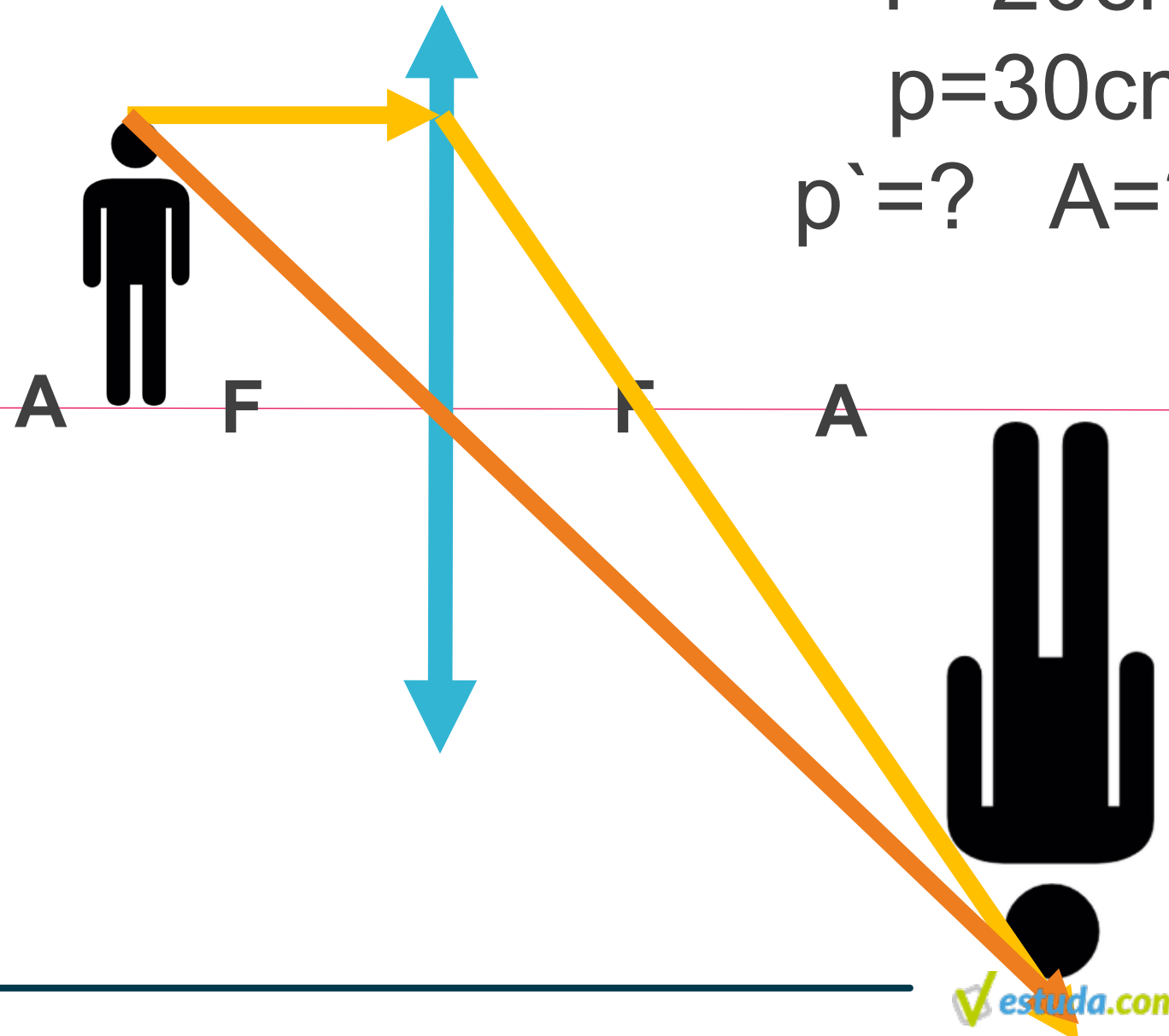
Lentes convergentes

$$\frac{1}{f} = \frac{1}{p} + \frac{1}{p'}$$

$$\frac{1}{20} = \frac{1}{30} + \frac{1}{p'}$$

$$P' = 60\text{cm}$$

$$F = 20\text{cm}$$
$$p = 30\text{cm}$$
$$p' = ? \quad A = ?$$

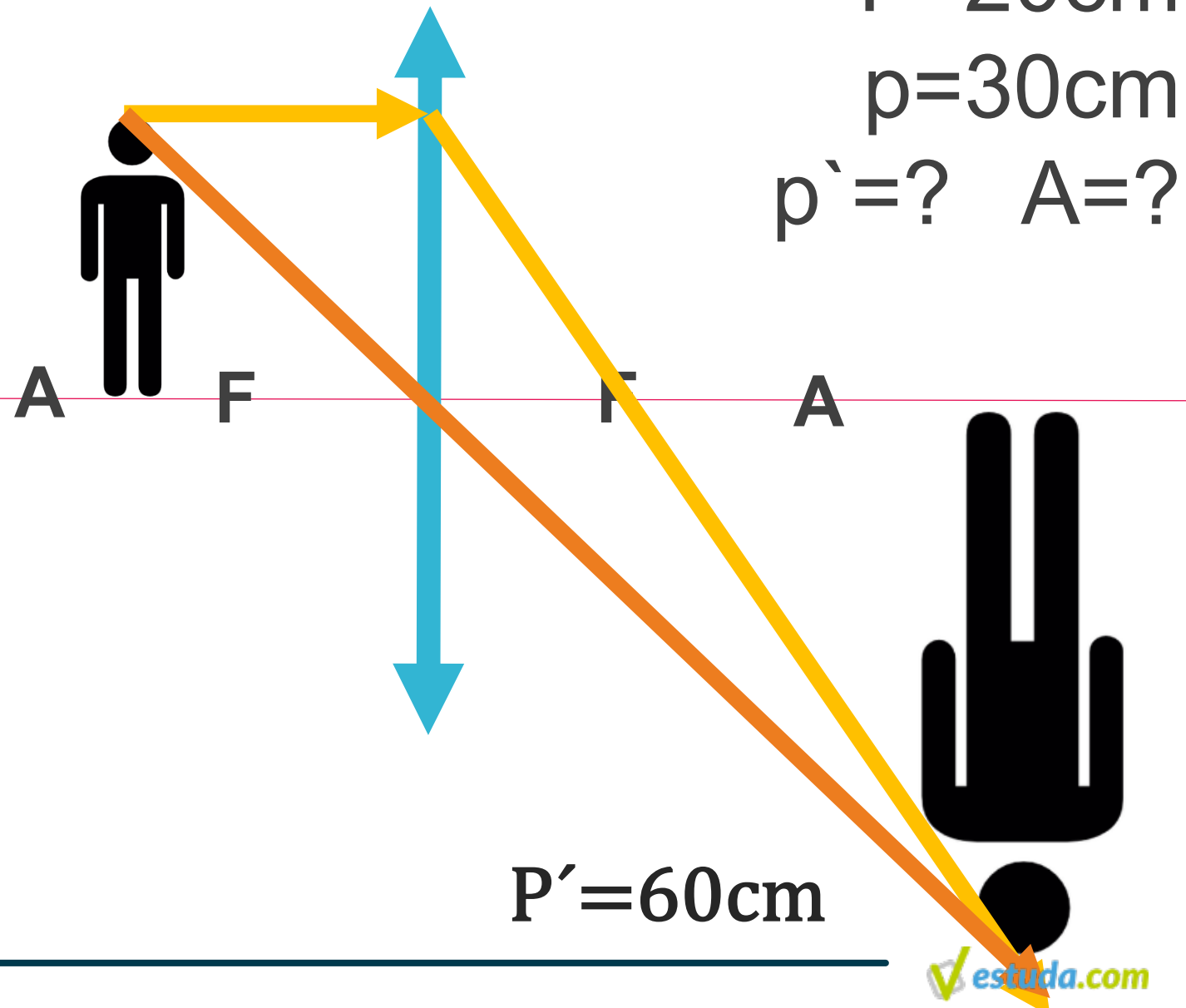


Lentes convergentes

$$\frac{I}{O} = A = -\frac{p'}{p}$$

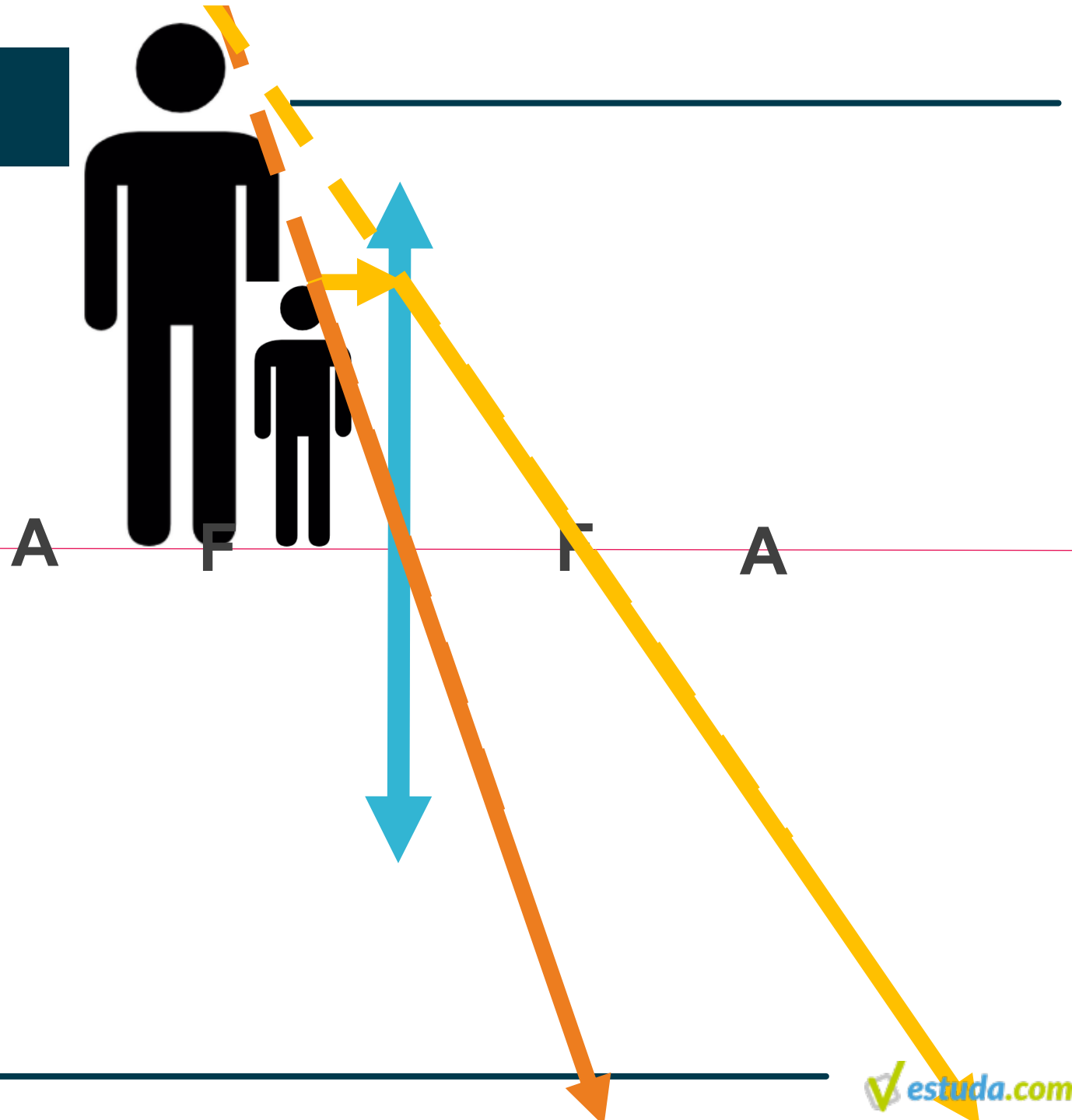
$$A = -\frac{(60)}{(30)}$$

$$A = -\frac{2}{1}$$



Lentes convergentes

Imagem virtual
Maior
direita

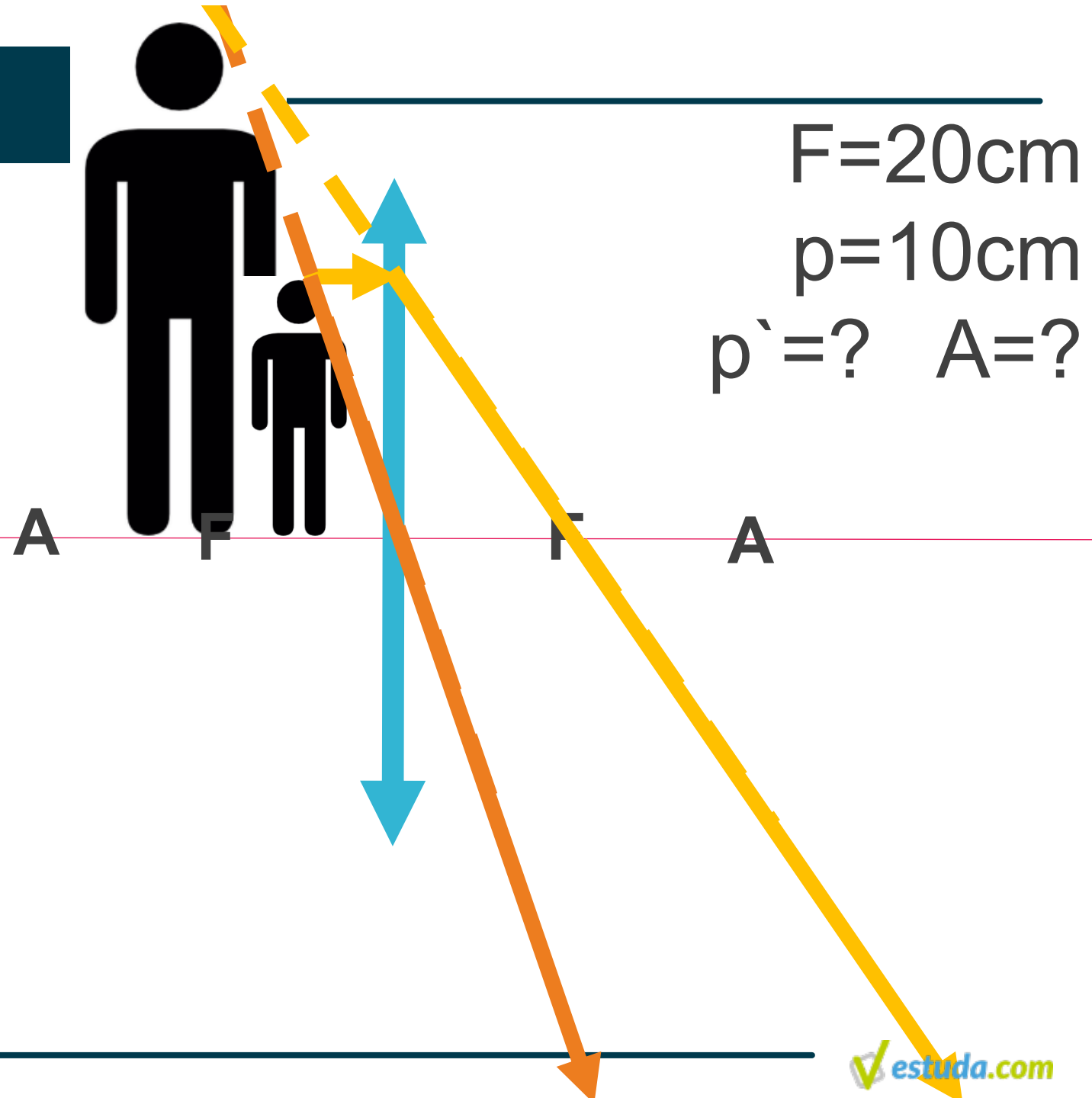


Lentes convergentes

$$\frac{1}{f} = \frac{1}{p} + \frac{1}{p'}$$

$$\frac{1}{20} = \frac{1}{10} + \frac{1}{p'}$$

$$P' = -20\text{cm}$$

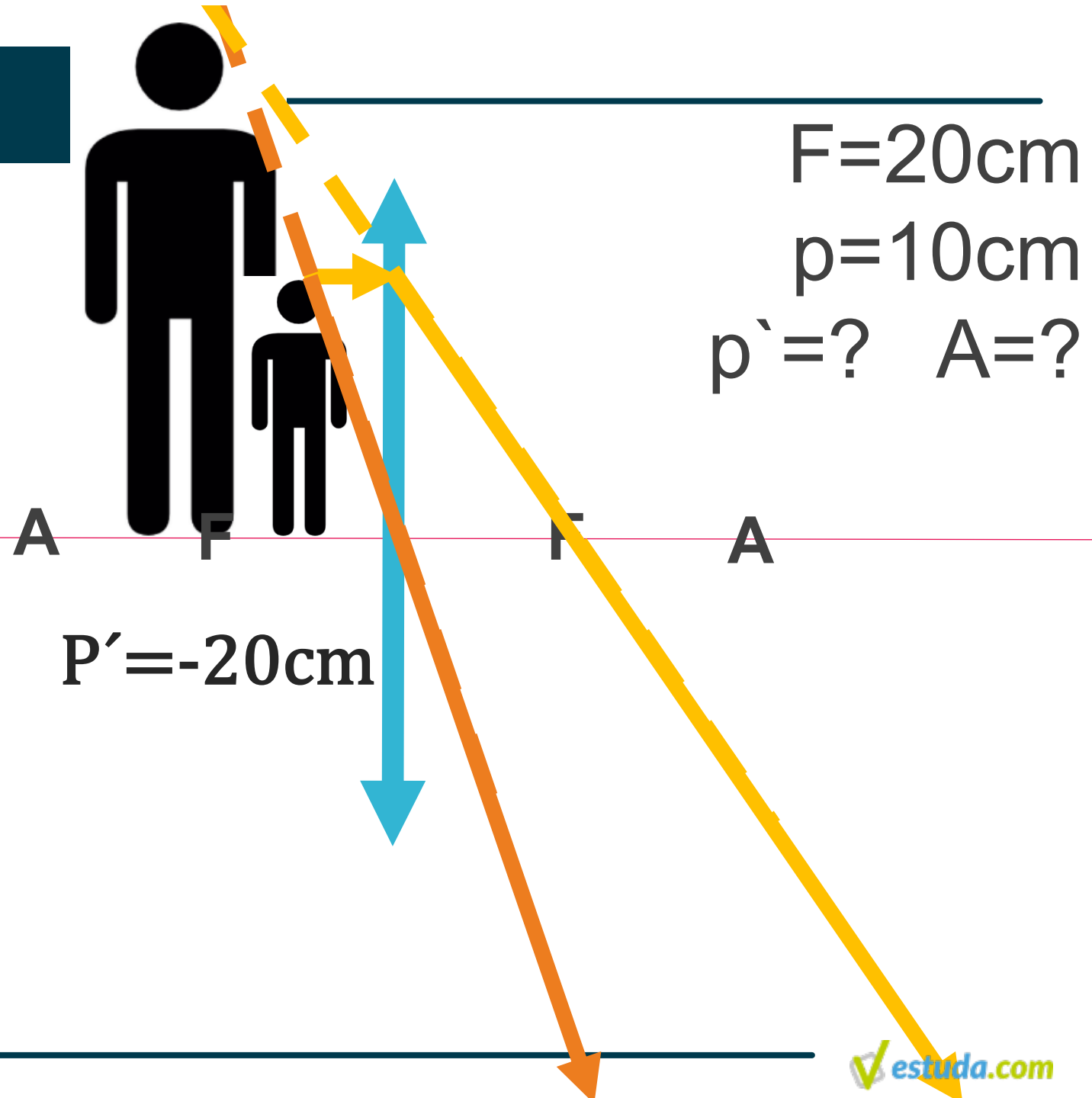


Lentes convergentes

$$\frac{I}{O} = A = -\frac{p'}{p}$$

$$A = -\frac{(-20)}{(10)}$$

$$A = +\frac{2}{1}$$

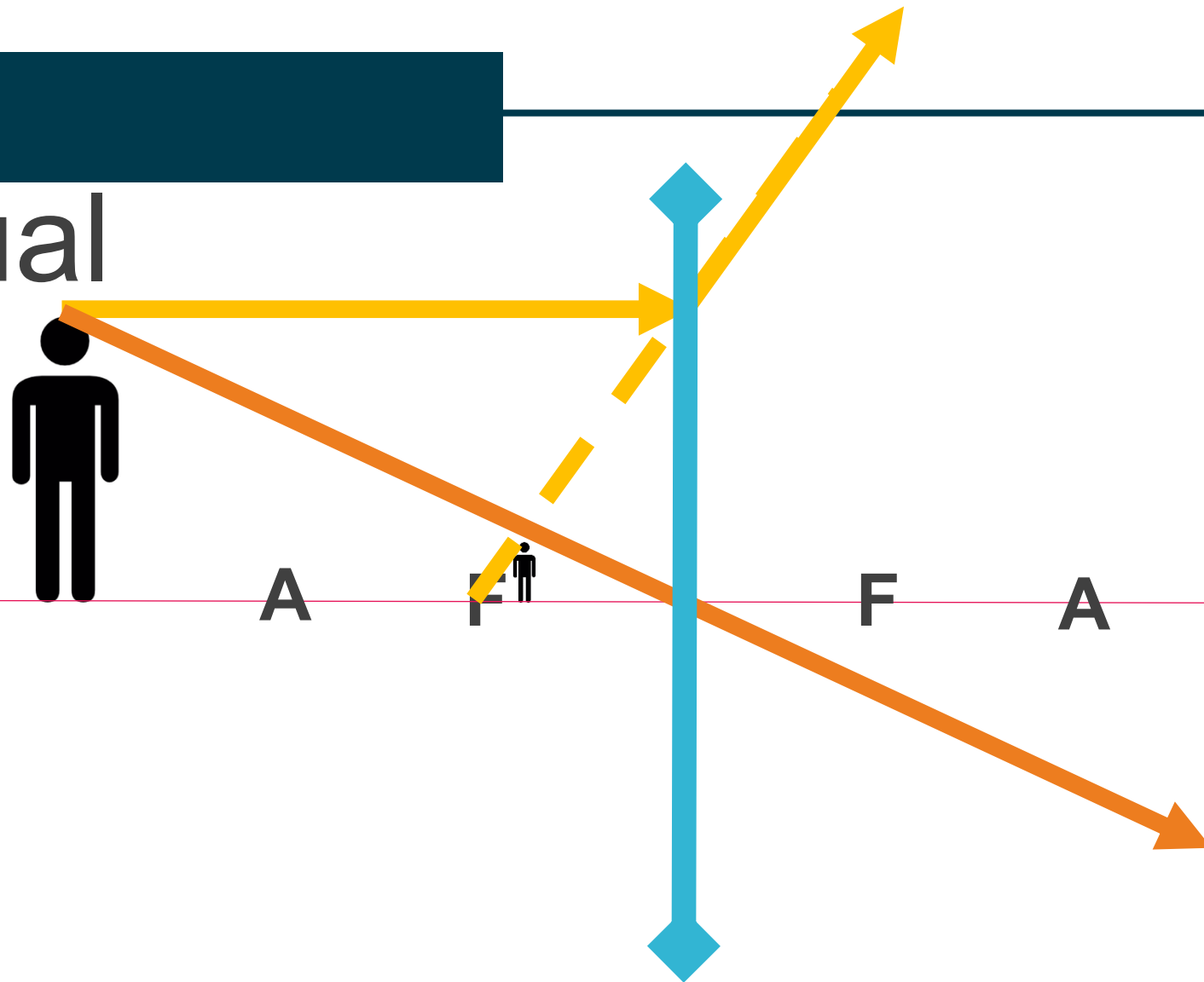


Lentes divergentes

Imagem **virtual**

menor

direita

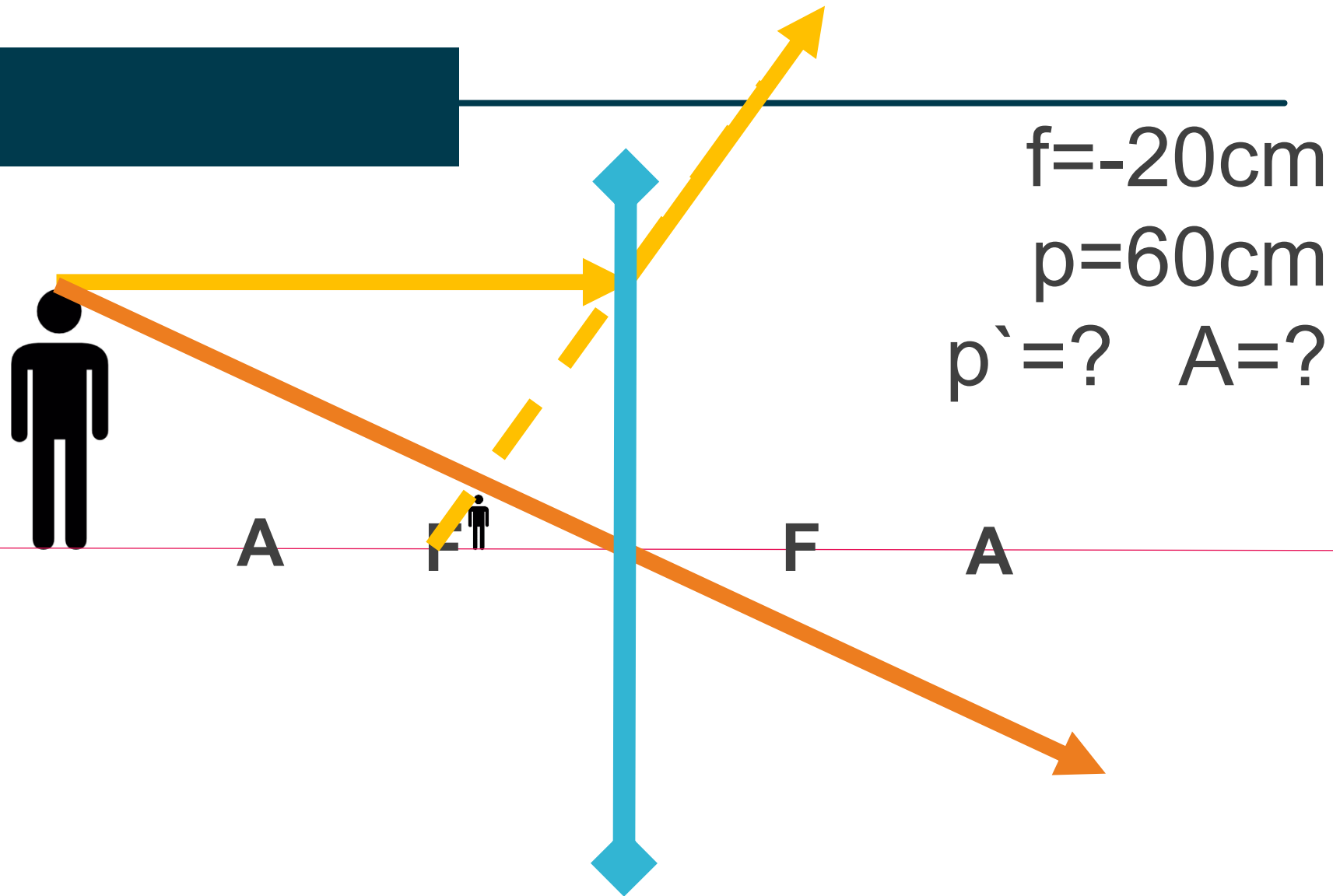


Lentes divergentes

$$\frac{1}{f} = \frac{1}{p} + \frac{1}{p'}$$

$$\frac{1}{-20} = \frac{1}{60} + \frac{1}{p'}$$

$$P' = -7,5\text{cm}$$

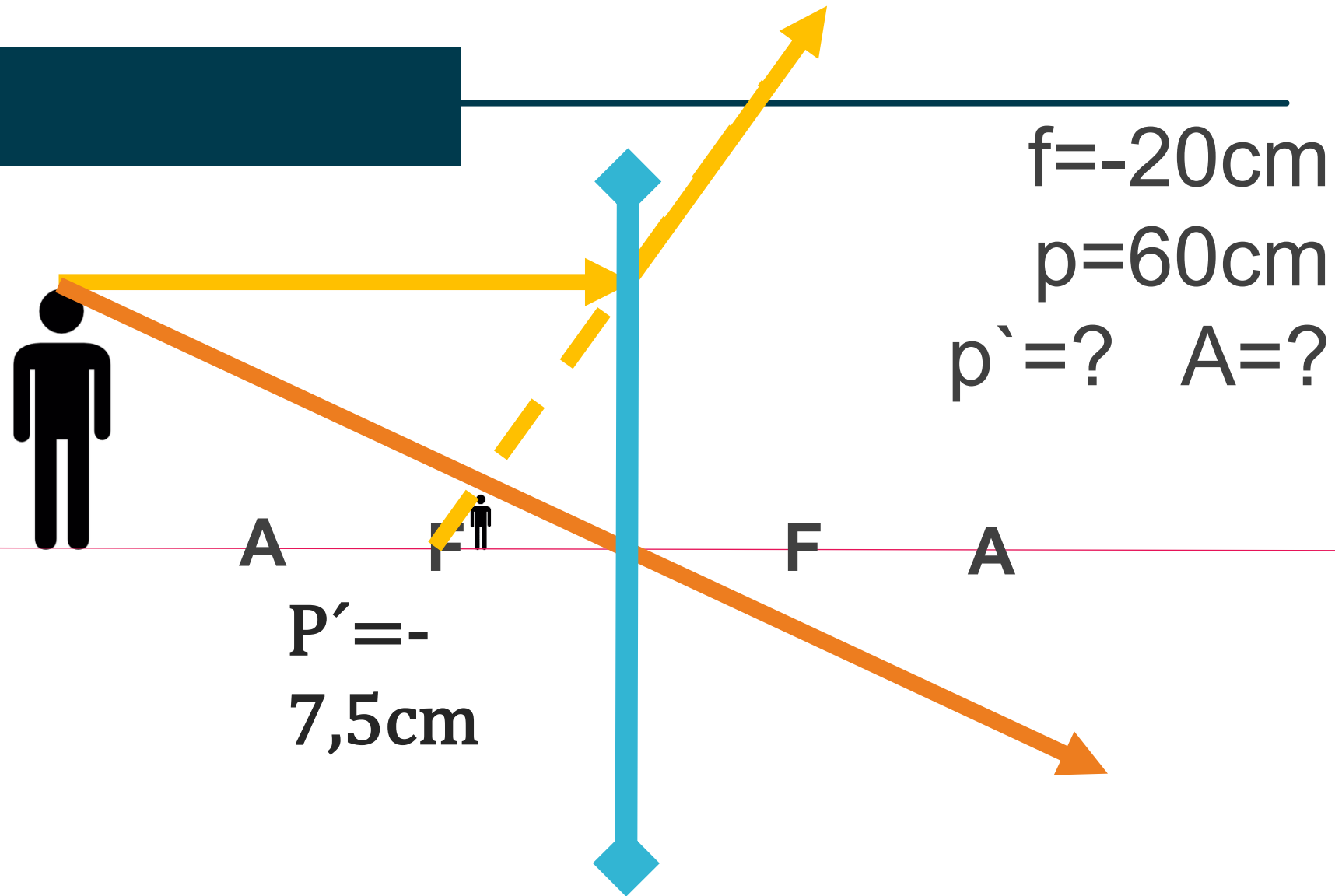


Lentes divergentes

$$\frac{I}{O} = A = -\frac{p'}{p}$$

$$A = -\frac{(-20)}{(60)}$$

$$A = +\frac{1}{3}$$



Lentes esféricas II

Prof. Jadoski

Física