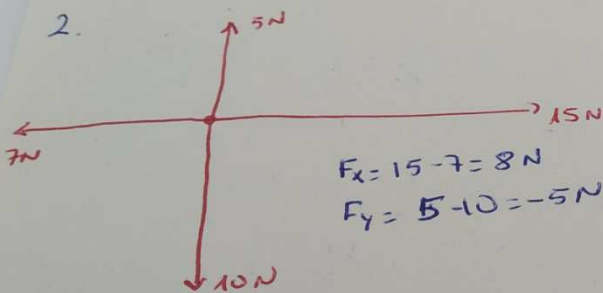


VECTORES

DINAMICA

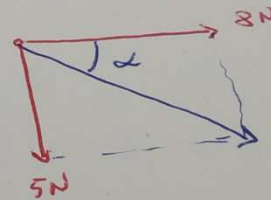
1. a) Mesmo direc. $\rightarrow 2F$ b) Mesmo pto de aplicaçã, mesmo direc. e sentidos opostos.

2.



$$F_x = 15 - 7 = 8 \text{ N}$$

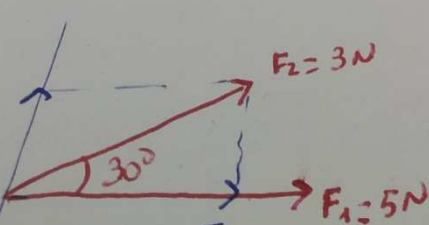
$$F_y = 5 - 10 = -5 \text{ N}$$



$$F_r = \sqrt{8^2 + 5^2} = 9.43 \text{ N}$$

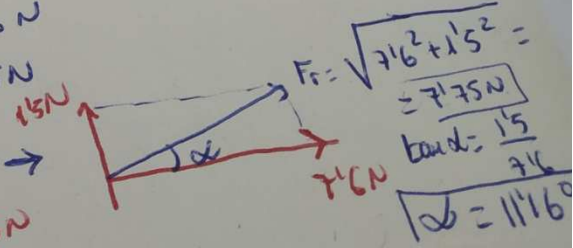
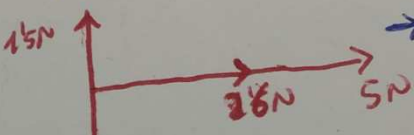
$$\tan \alpha = -\frac{5}{8} \rightarrow \alpha = -32^\circ$$

3.



$$F_{2x} = 3 \cdot \cos 30^\circ = 2.6 \text{ N}$$

$$F_{2y} = 3 \cdot \sin 30^\circ = 1.5 \text{ N}$$



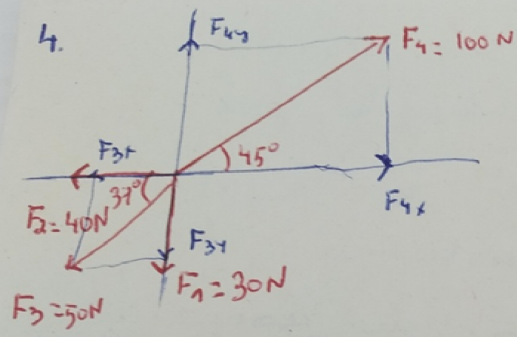
$$F_r = \sqrt{7.6^2 + 1.5^2} = 7.75 \text{ N}$$

$$\tan \alpha = \frac{1.5}{7.6} \rightarrow \alpha = 11.16^\circ$$

SHOT ON REDMI 7
AI DUAL CAMERA

$$45 = 70.71 \text{ N}$$

$126 = 111.6^\circ$

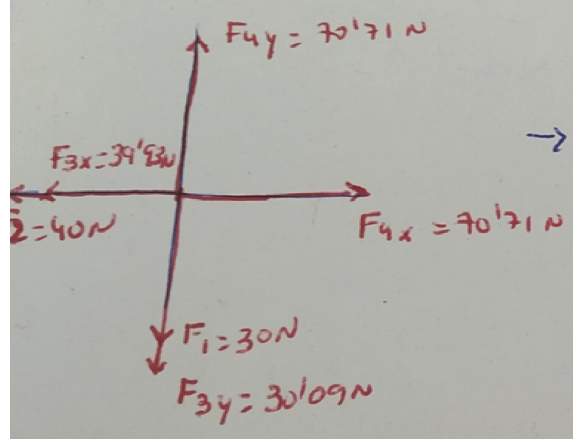


$$F_{4x} = 100 \cdot \cos 45 = 70.71 \text{ N}$$

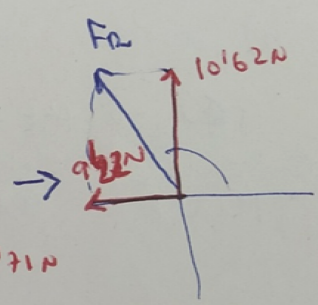
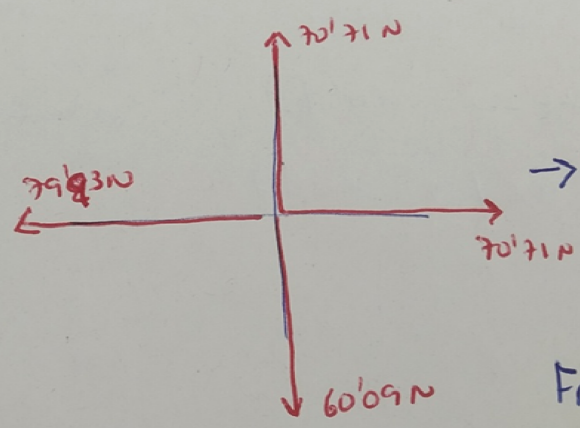
$$F_{4y} = 100 \cdot \sin 45 = 70.71 \text{ N}$$

$$F_{3x} = 50 \cdot \cos 37 = 39.93 \text{ N}$$

$$F_{3y} = 50 \cdot \sin 37 = 30.09 \text{ N}$$



$\rightarrow 39.93 \text{ N}$



$$F_R = \sqrt{10.62^2 + 9.22^2}$$

$$= 14.06 \text{ N}$$

$$\tan \alpha = \frac{10.62}{-9.22} \rightarrow \alpha = 130.66^\circ$$

SHOT ON REDMI 12
AI DUAL CAMERA