



Mi Universidad

Ejercicios

Nombre del Alumno: Brayan Yahel Fernández López

Nombre del tema: Vectores

Parcial: II

Nombre de la Materia: FÍSICA

Nombre del profesor: OJEDA

Nombre de la Licenciatura: Recursos humanos

Cuatrimestre: IV

①

$$V = 5 \text{ cm } \angle 100^\circ$$

$$V_x = 1 \text{ cm}$$

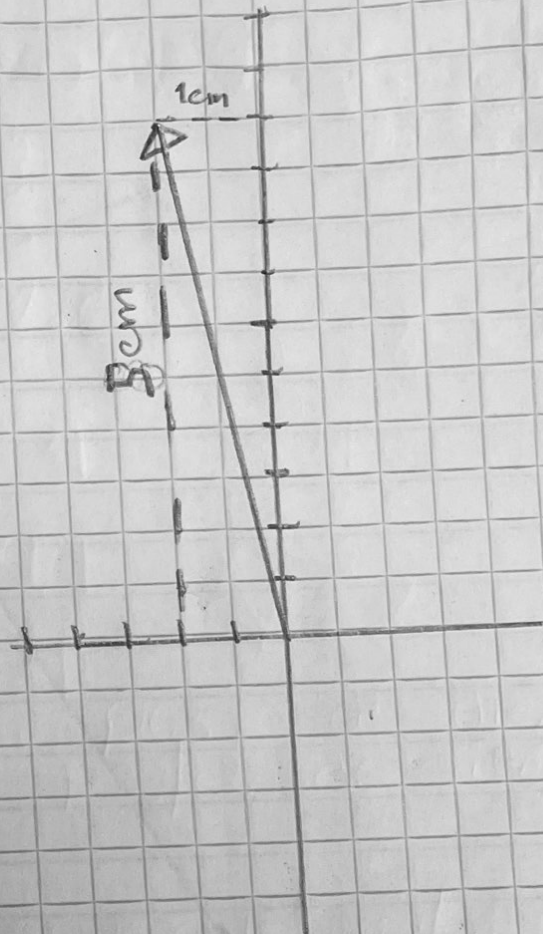
$$V_y = 5 \text{ cm}$$

$$V_x = 5 \text{ cm } \cos 100^\circ$$

$$V_x = -0.8$$

$$V_y = 5 \text{ cm } \sin 100^\circ$$

$$V_y = 4.9$$

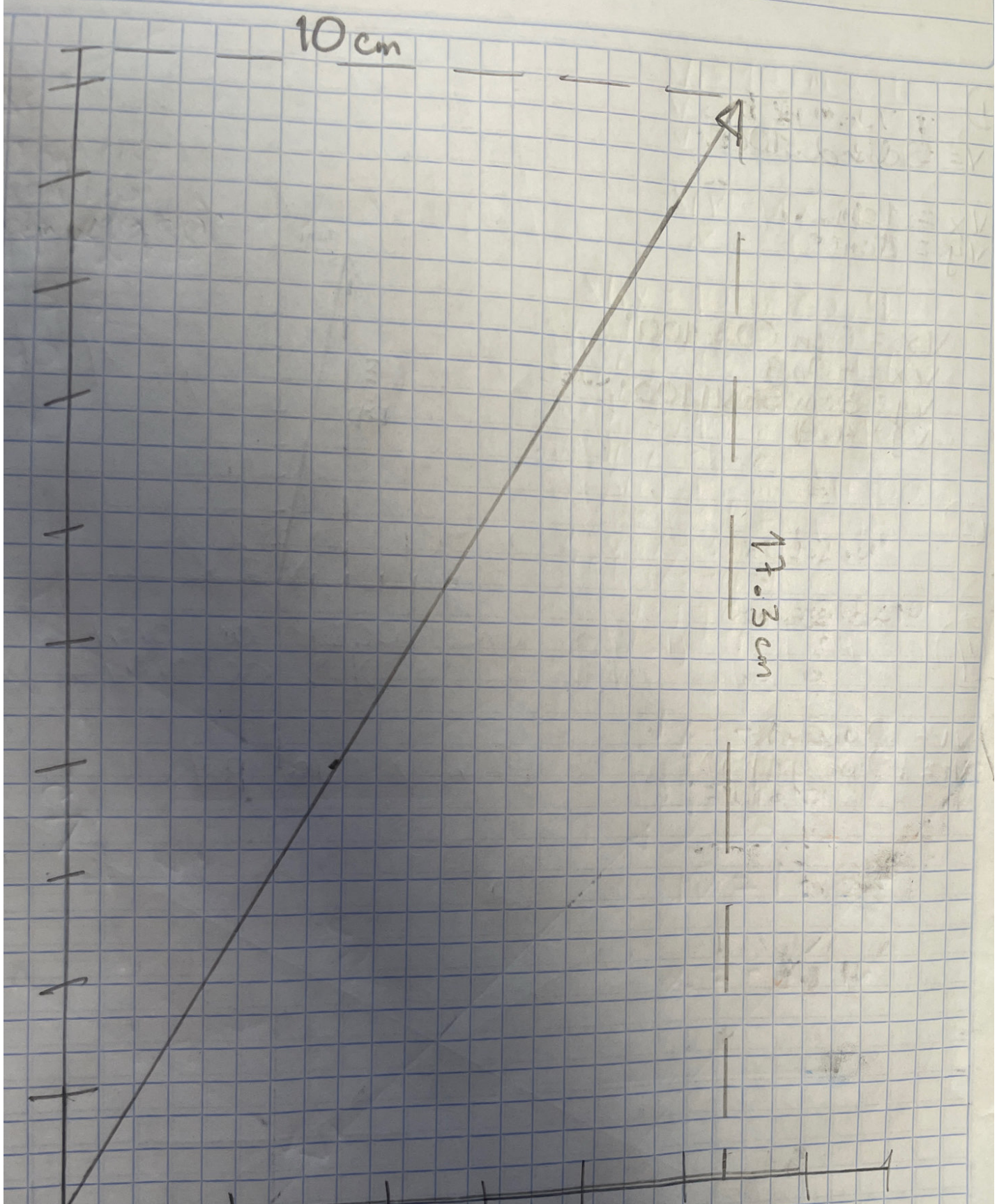


②

$$V_1 = 10 \text{ cm } \angle 85^\circ$$

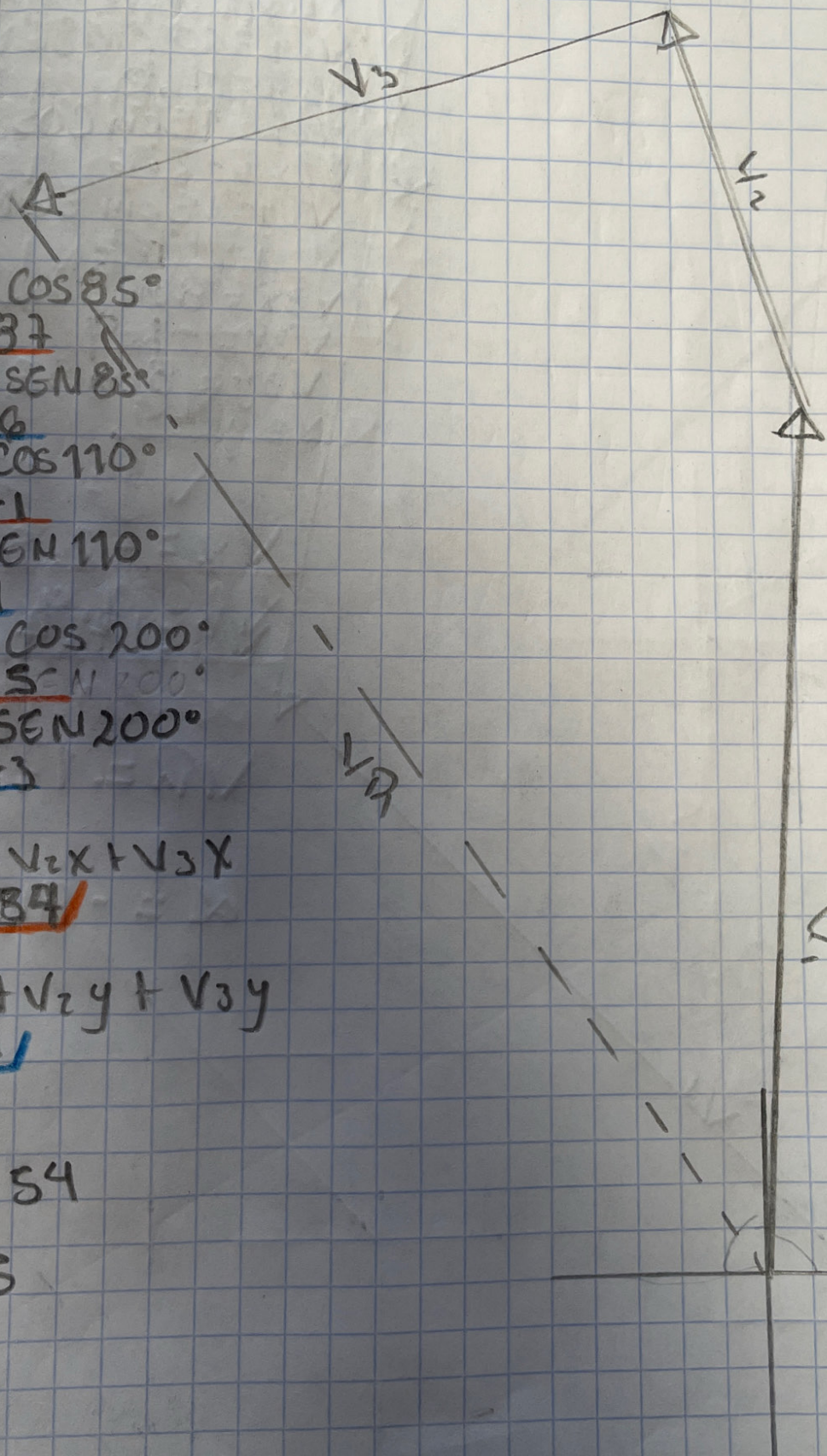
$$V_2 = 10 \text{ cm } \angle 115^\circ$$

$$V_3 = 9 \text{ cm } \angle 20^\circ$$



$V = 20 \text{ cm} \angle 150^\circ$
 $V_x = 10 \text{ cm}$
 $V_y = 17.3 \text{ cm}$
 $V_x = 20 \text{ cm} \cos 150^\circ$
 $V_x = 17.3$
 $V_y = 20 \text{ cm} \sin 15^\circ$
 $V_y = 10$

$$\begin{aligned}
 V_1 &= 10 \text{ cm } \angle 85^\circ \\
 V_2 &= 5 \text{ cm } \angle 110^\circ \\
 V_3 &= 8 \text{ cm } \angle 200^\circ \\
 V_R &= -14.07 \text{ cm} \\
 &\angle -125^\circ
 \end{aligned}$$



$$V_{1x} = 10 \text{ cm } \cos 85^\circ$$

$$V_{1x} = 0.87$$

$$V_{1y} = 10 \text{ cm } \sin 85^\circ$$

$$V_{1y} = 9.96$$

$$V_{2x} = 5 \text{ cm } \cos 110^\circ$$

$$V_{2x} = -1.71$$

$$V_{2y} = 5 \text{ cm } \sin 110^\circ$$

$$V_{2y} = 4.69$$

$$V_{3x} = 8 \text{ cm } \cos 200^\circ$$

$$V_{3x} = -7.52$$

$$V_{3y} = 8 \text{ cm } \sin 200^\circ$$

$$V_{3y} = -2.73$$

$$V_x = V_{1x} + V_{2x} + V_{3x}$$

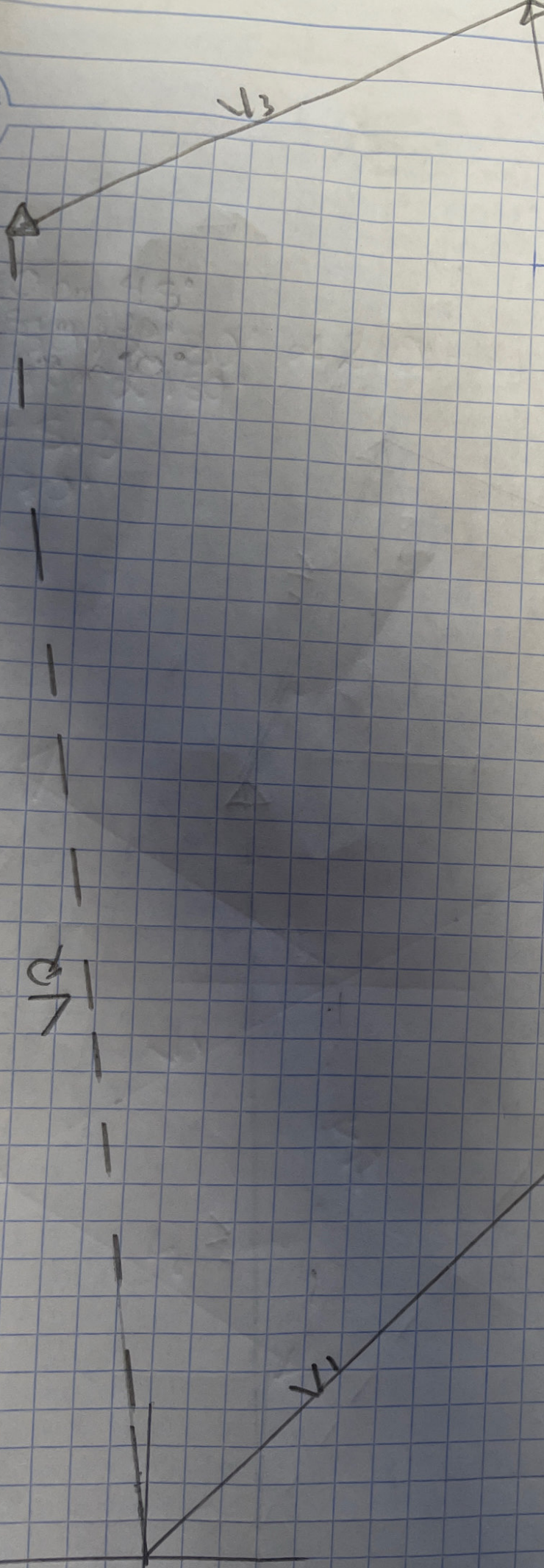
$$V_x = -8.34$$

$$V_y = V_{1y} + V_{2y} + V_{3y}$$

$$V_y = 11.92$$

$$V_R = 14.54$$

$$\alpha = -55$$



$$V_1 = 10 \text{ cm } \angle 45^\circ$$

$$V_2 = 15 \text{ cm } \angle 100^\circ$$

$$V_3 = 8 \text{ cm } \angle 210^\circ$$

$$V_R = 17.9$$

$$\alpha = -98^\circ$$

$$V_{1x} = 10 \text{ cm } \cos 45^\circ$$

$$V_{1x} = 7.0$$

$$V_{1y} = 10 \text{ cm } \sin 45^\circ$$

$$V_{1y} = 7.0$$

$$V_{2x} = 15 \text{ cm } \cos 100^\circ$$

$$V_{2x} = -2.6$$

$$V_{2y} = 15 \text{ cm } \sin 100^\circ$$

$$V_{2y} = 14.7$$

$$V_{3x} = 8 \text{ cm } \cos 210^\circ$$

$$V_{3x} = -6.9$$

$$V_{3y} = 8 \text{ cm } \sin 210^\circ$$

$$V_{3y} = -4$$

$$V_x = -2.5$$

$$V_y = 17.7$$

$$V_R = 17.87$$

$$\alpha = -81.96$$

$$V_1 = 10 \text{ cm } 45^\circ \quad V_1 - V_2$$

$$V_2 = 5 \text{ cm } 110^\circ \text{ or } 290^\circ$$

$$V_R = 9.02$$

$$\alpha = 349^\circ$$

$$V_{1x} = 10 \text{ cm } \cos 45^\circ$$

$$V_{1x} = 7$$

$$V_{1y} = 10 \text{ cm } \sin 45^\circ$$

$$V_{1y} = 7$$

$$V_{2x} = 5 \cos 290^\circ$$

$$V_{2x} = 1.7$$

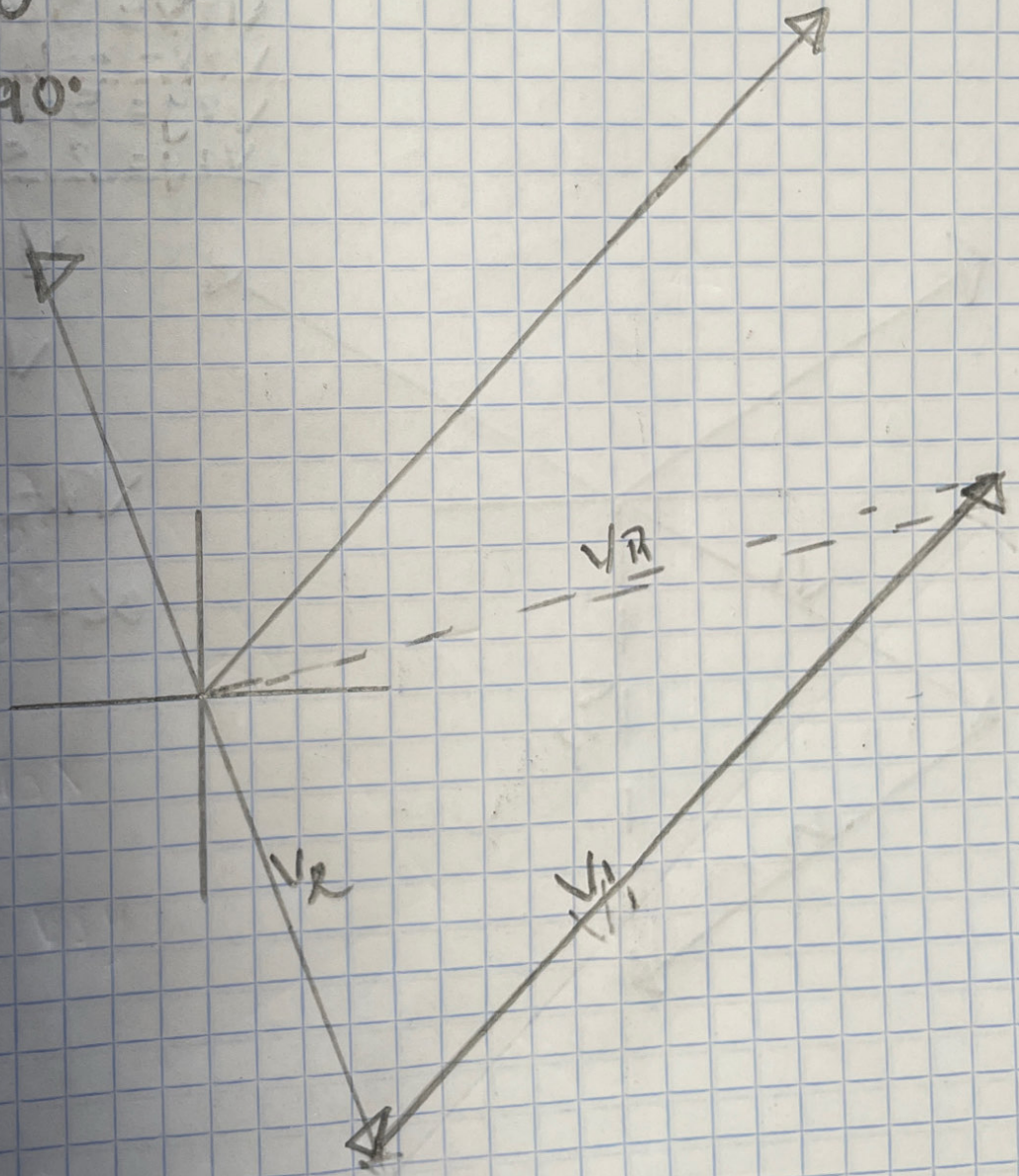
$$V_{2y} = 5 \sin 290^\circ$$

$$V_{2y} = -4.6$$

$$\sqrt{V_x^2 + V_y^2}$$
$$8.7^2 + 2.4^2$$

$$V_R = 9.02$$

$$\alpha = 15.45^\circ$$



$$V_1 = 5 \text{ cm } \angle 30^\circ \text{ } \angle 210^\circ$$

$$V_2 = 5 \text{ cm } \angle 150^\circ$$

$$V_R = 5.3$$

$$\alpha = 270^\circ$$

$$V_{1x} = 5 \text{ cm } \cos 210^\circ$$

$$V_{1x} = -4.3$$

$$V_{1y} = 5 \text{ cm } \sin 210^\circ$$

$$V_{1y} = -2.5$$

$$V_{2x} = 5 \text{ cm } \cos 150^\circ$$

$$V_{2x} = -4.3$$

$$V_{2y} = 5 \text{ cm } \sin 150^\circ$$

$$V_{2y} = 2.5$$

$$V_x = -8.6$$

$$V_y = 5$$

$$V_R = 9.9$$

$$\alpha = 30.17$$

