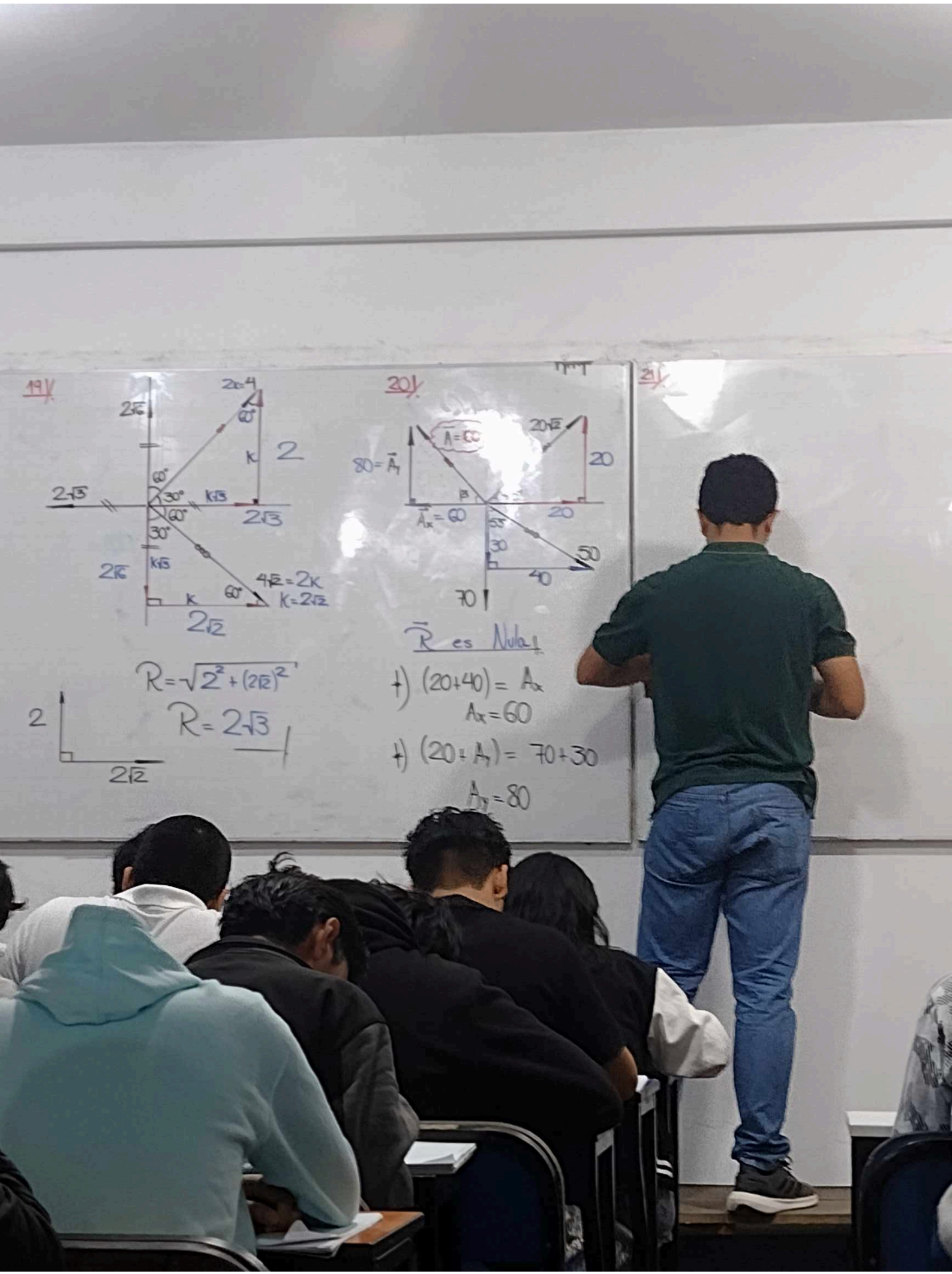
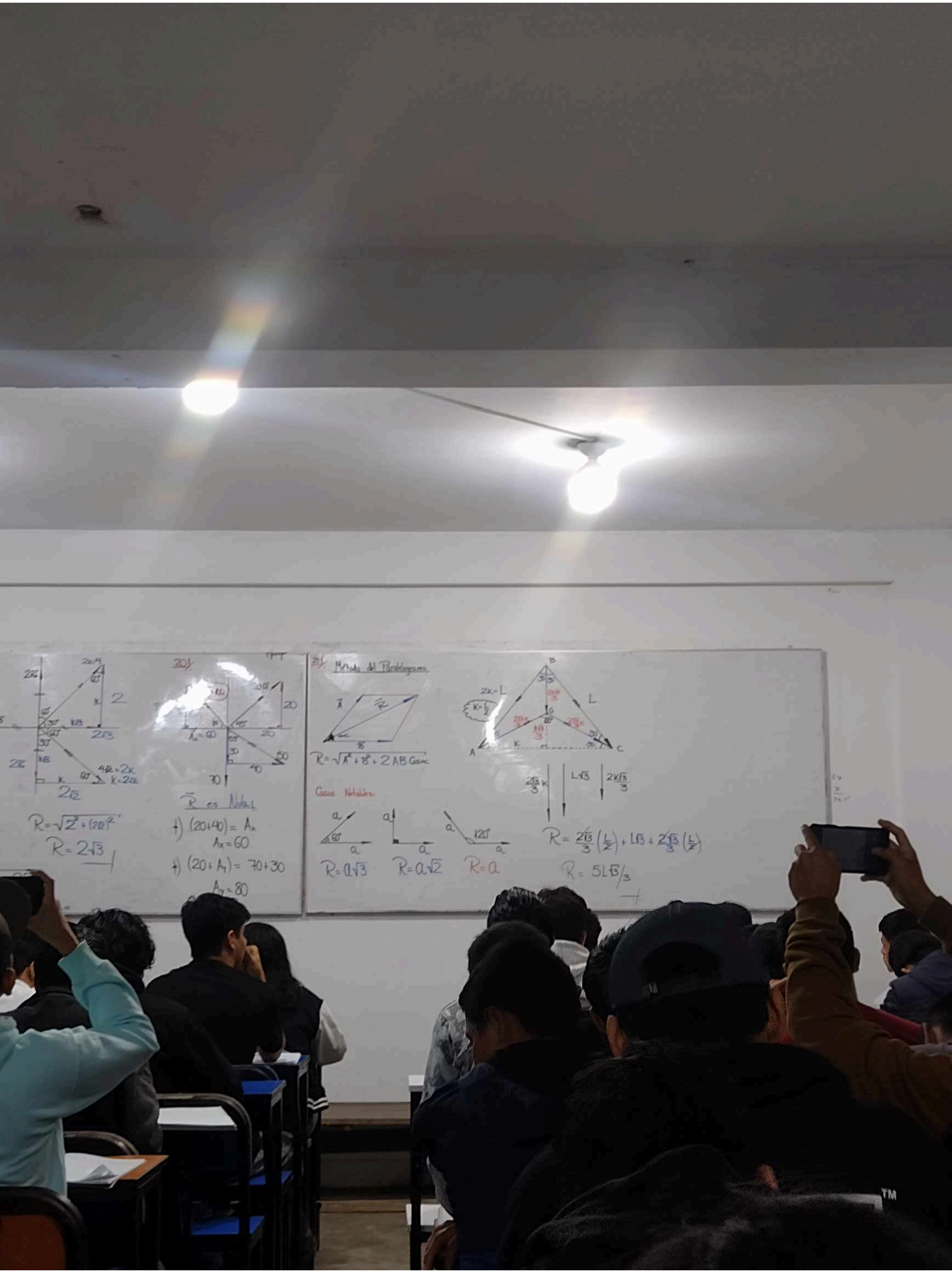
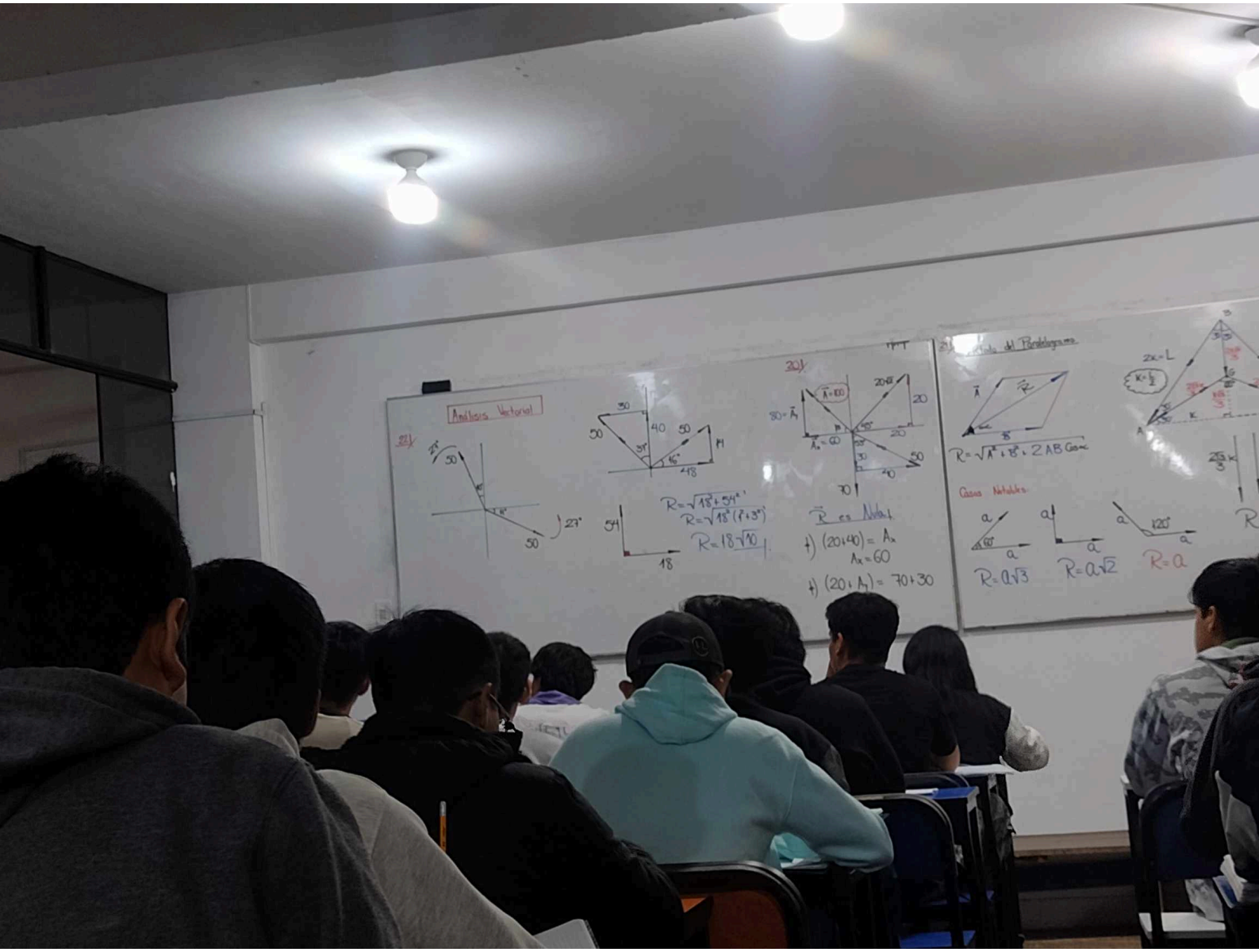
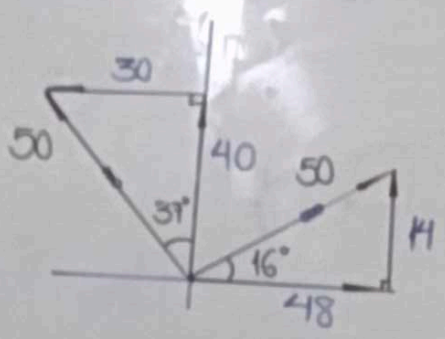

Análisis Vectorial
Descomposición Rectangular
Y
X
$\vec{A}$
$\vec{A}_y$
$\vec{A}_x$
19)
20)
$2\sqrt{6}$
2k=4
60°
k
2
$2\sqrt{3}$
30°
$k\sqrt{3}$
$2\sqrt{6}$
$4\sqrt{2}=2k$
$2\sqrt{2}$
$R=\sqrt{2^2+(2\sqrt{2})^2}$
$R=2\sqrt{3}$


19)
2√6
2c=4
60°
K
2
60°
2√3
30°
K√3
2√3
60°
30°
2√6
K√3
4√2=2K
K=2√2
60°
K
2√2
R=√(2²+(2√2)²)
R=2√3
2
2√2
20)
A=100
20√2
80=A_y
20
A_x=60
20
30
50
40
70
R es Nula!
+) (20+40)=A_x
A_x=60
+) (20+A_y)=70+30
A_y=80
21)


Método del Paralelogramo
Casos Notables:
R = a√3
R = a√2
R = a
R = 5L√3/3
R = 2√3
Ax = 60
Ay = 80


Análisis Vectorial
$R=\sqrt{18^2+54^2}$
$R=\sqrt{18^2(1^2+3^2)}$
$R=18\sqrt{10}$
$\vec{R}$ es Notable
$\vec{A}=100$
$A_x=60$
$R=\sqrt{A^2+B^2+2AB\cos\alpha}$
Casos Notables
$R=a\sqrt{3}$
$R=a\sqrt{2}$
$R=a$



$$R = \sqrt{18^2 + 54^2}$$

$$R = \sqrt{18^2(1^2 + 3^2)}$$

$$R = 18\sqrt{10}$$

23)

$$\vec{A} - 2\vec{B} - \vec{C} = 10\hat{i} + 5\hat{j}$$

$$\vec{A} + \vec{B} + \vec{C} = -4\hat{i} + 3\hat{j}$$

$$|\vec{A} - 5\vec{B} - 3\vec{C}|$$

(-)

$$2\vec{A} - 4\vec{B} - 2\vec{C} = 20\hat{i} + 10\hat{j}$$

$$\vec{A} + \vec{B} + \vec{C} = -4\hat{i} + 3\hat{j}$$

$$\vec{A} - 5\vec{B} - 3\vec{C} = \underbrace{24\hat{i}}_{x} + \underbrace{7\hat{j}}_{y}$$

$$\sqrt{24^2 + 7^2}$$

$$25$$

$2\vec{B} - \vec{C} = 10\hat{i} + 5\hat{j}$

$\vec{B} + \vec{C} = -4\hat{i} + 3\hat{j}$

$|3\vec{B} - 3\vec{C}|$

$4\vec{B} - 2\vec{C} = 20\hat{i} + 10\hat{j}$

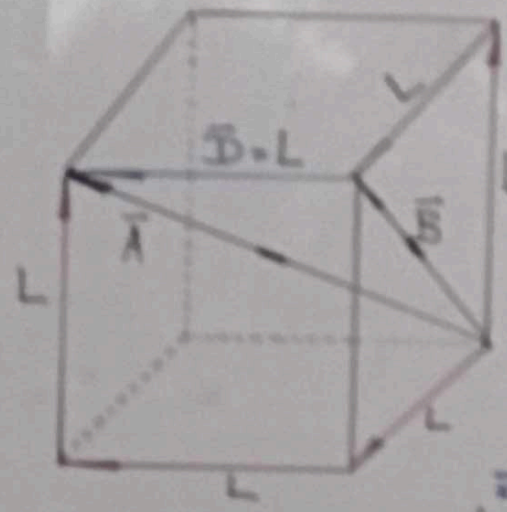
$\vec{B} + \vec{C} = -4\hat{i} + 3\hat{j}$

$\vec{B} - 3\vec{C} = \underset{x}{24}\hat{i} + \underset{y}{7}\hat{j}$

$\sqrt{24^2 + 7^2}$

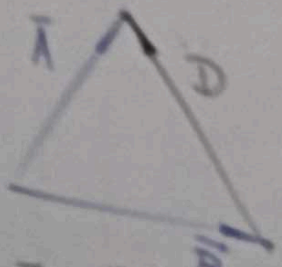
25

28)

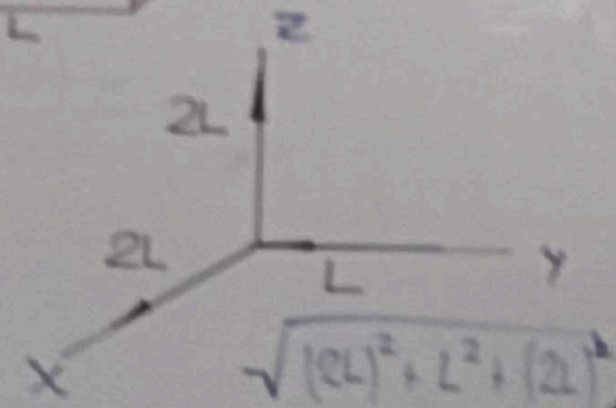


$$\frac{|\vec{A} + \vec{B}|}{|\vec{A} - \vec{B}|}$$

$$\frac{3L}{L} = 3$$



$\vec{D} = \vec{A} - \vec{B}$



$\sqrt{(2L)^2 + L^2 + (2L)^2}$

$3L$