



PHYSICS

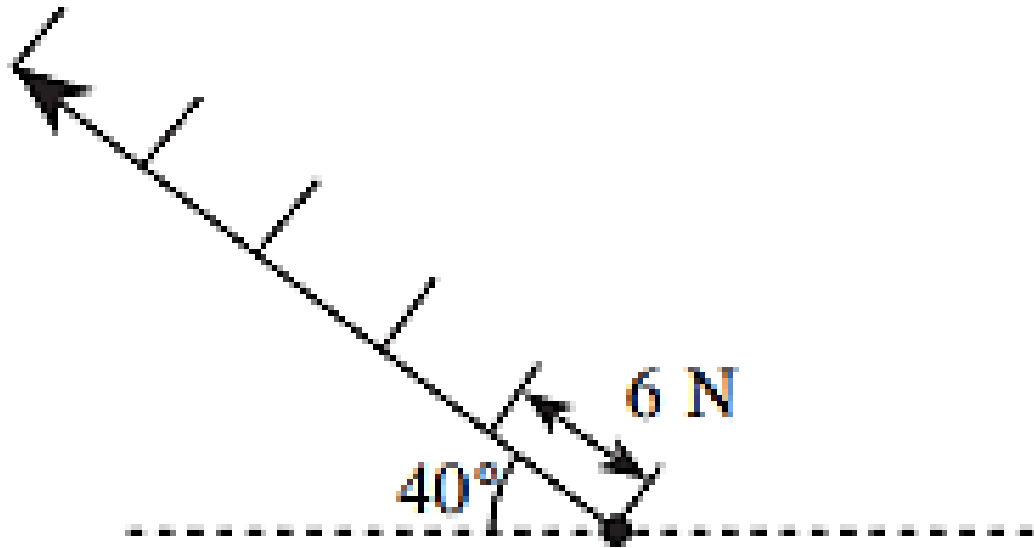
**ANUAL ESCOLAR
2021**

**RETROALIMENTACIÓN 1ER
AÑO**

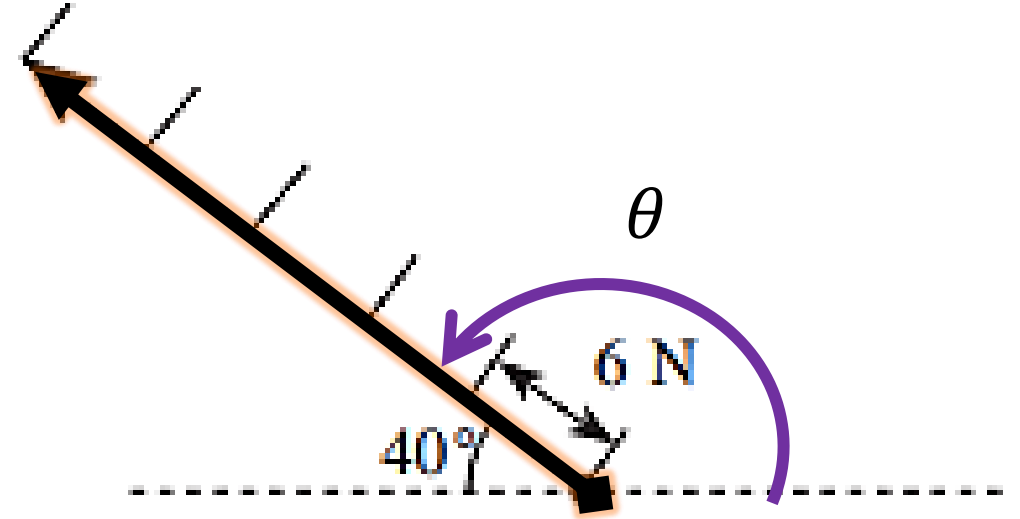


 **SACO OLIVEROS**

1 DETERMINE LOS ELEMENTOS DEL VECTOR MOSTRADO



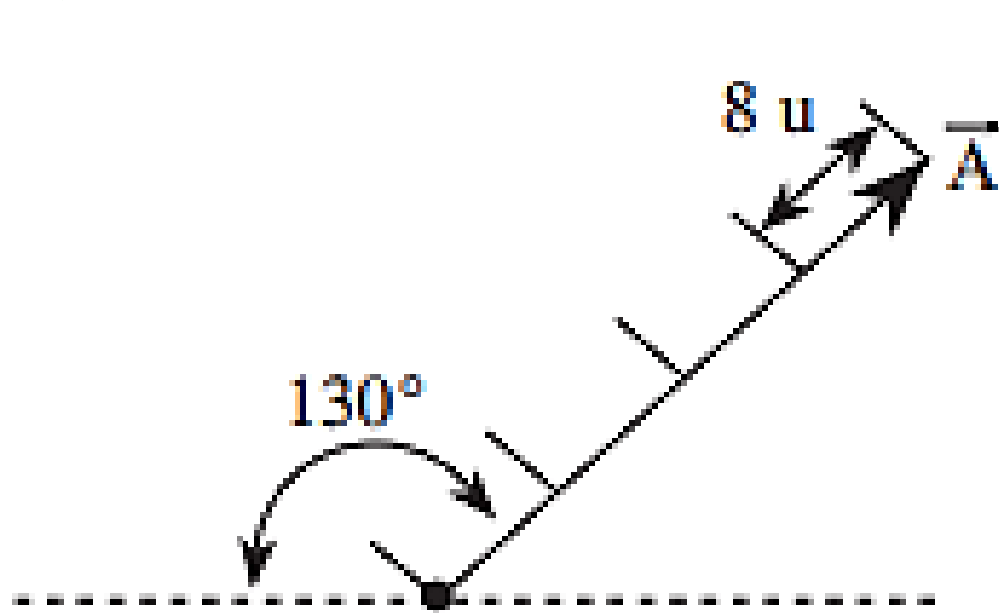
RESOLUCIÓN



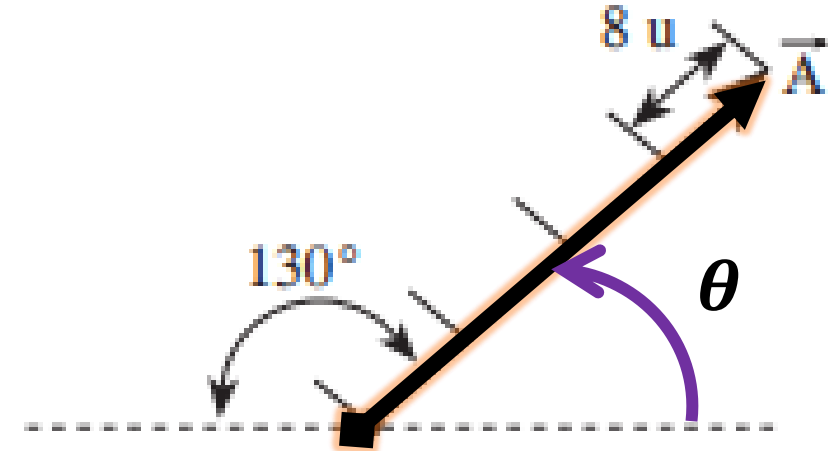
Módulo: $F = 5 \times 6\text{ N} \rightarrow F = 30\text{ N}$

Dirección: $\theta = 180^\circ - 40^\circ \rightarrow \theta = 140^\circ$

2 DETERMINE LOS ELEMENTOS DEL VECTOR MOSTRADO.



RESOLUCIÓN

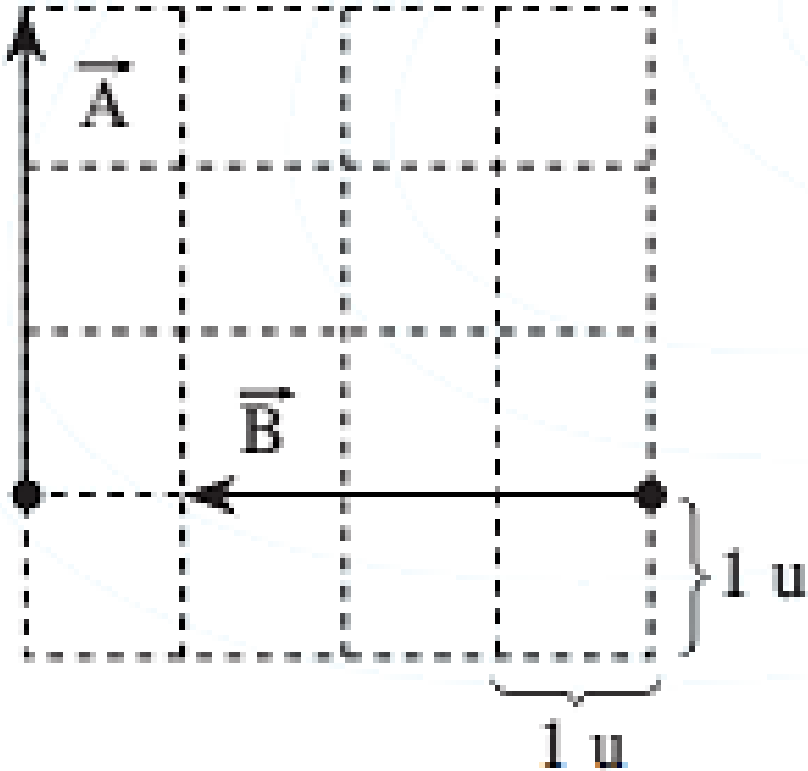


Módulo: $A = 4 \times 8u = 32u$

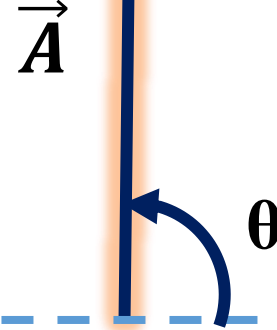
Dirección: $\theta = 180^\circ - 130^\circ \quad \theta = 50^\circ$

3

DETERMINE EL MÓDULO Y DIRECCIÓN DE LOS VECTORES A Y B, RESPECTIVAMENTE.



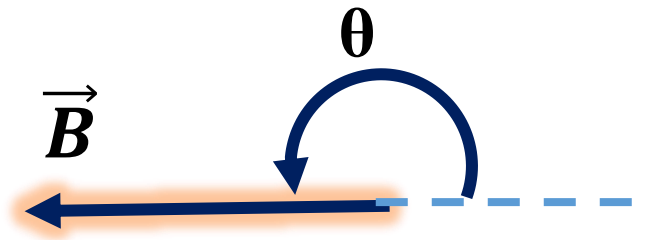
RESOLUCIÓN



Módulo: $3u$

Dirección:

$$\theta = 90^\circ$$



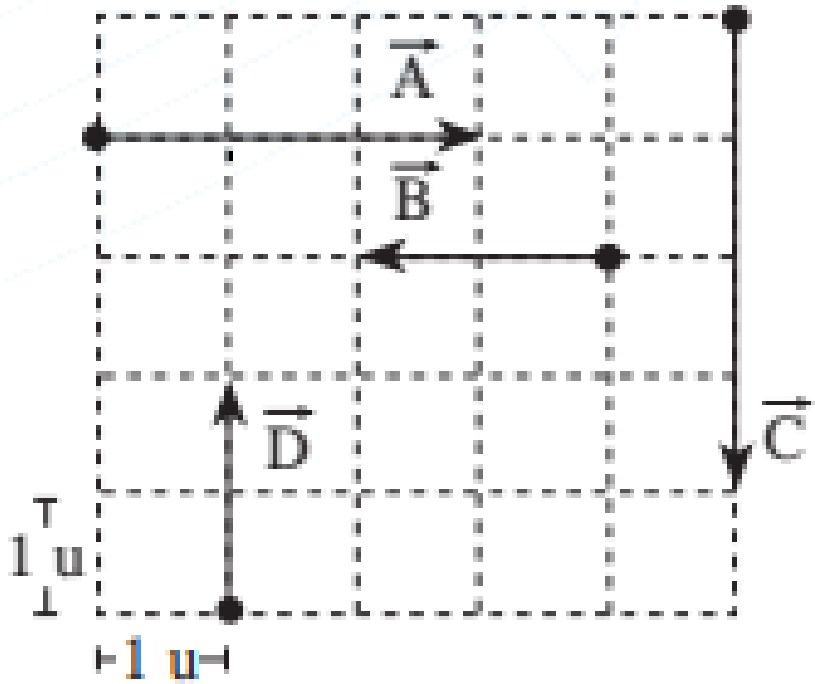
Módulo: $3u$

Dirección:

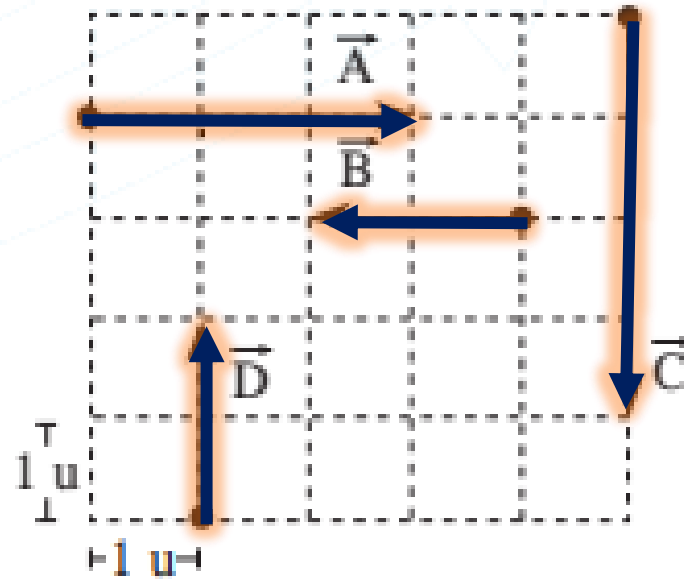
$$\theta = 180^\circ$$

4

DETERMINE EL VECTOR RESULTANTE EN TÉRMINOS DE LOS VECTORES \hat{i} Y \hat{j} .



RESOLUCIÓN



$$\vec{A} = 3\hat{i} \text{ u}$$

$$\vec{B} = -2\hat{i} \text{ u}$$

$$\vec{C} = -4\hat{j} \text{ u}$$

$$\vec{D} = 2\hat{j} \text{ u}$$

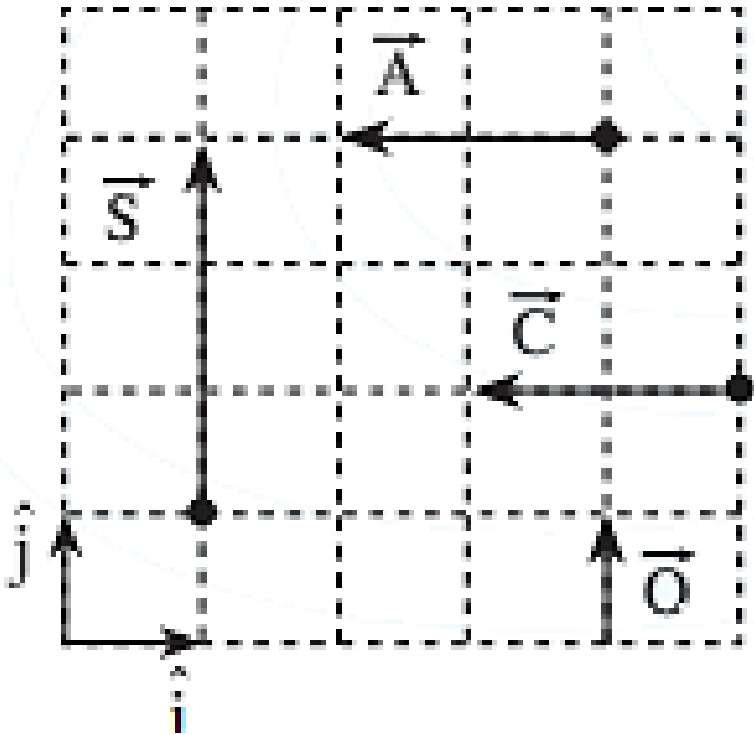
$$\vec{R} = \vec{A} + \vec{B} + \vec{C} + \vec{D}$$

$$\vec{R} = (3\hat{i}\text{u}) + (-2\hat{i} \text{ u}) + (-4\hat{j}\text{u}) + (2\hat{j} \text{ u})$$

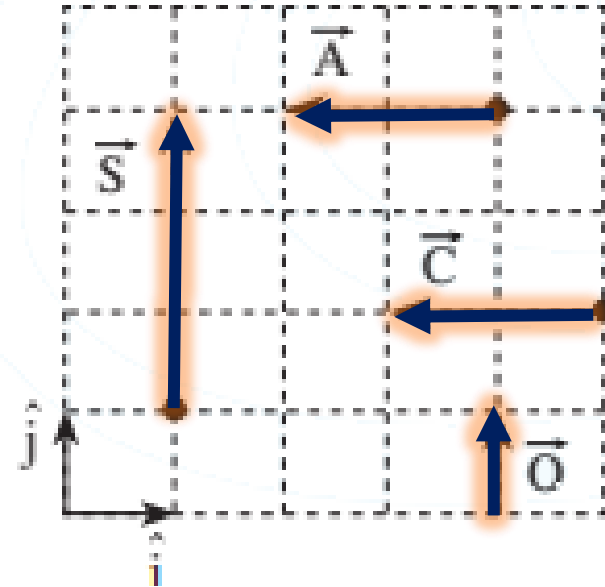
$$\vec{R} = 1\hat{i}\text{u} - 2\hat{j} \text{ u}$$

5

DETERMINE EL VECTOR RESULTANTE EN TÉRMINOS DE LOS VECTORES \hat{i} Y \hat{j} .



RESOLUCIÓN



$$\vec{S} = 3\hat{j} \text{ u}$$

$$\vec{A} = -2\hat{i} \text{ u}$$

$$\vec{C} = -2\hat{i} \text{ u}$$

$$\vec{O} = 1\hat{j} \text{ u}$$

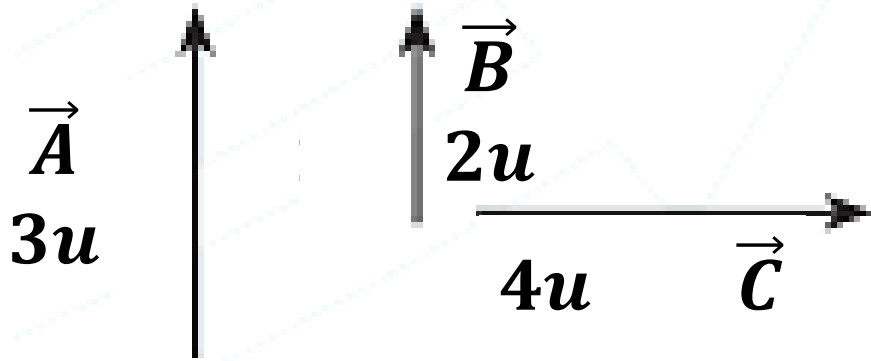
$$\vec{R} = \vec{S} + \vec{A} + \vec{C} + \vec{O}$$

$$\vec{R} = (3\hat{j}\text{u}) + (-2\hat{i} \text{ u}) + (-2\hat{i}\text{u}) + (1\hat{j} \text{ u})$$

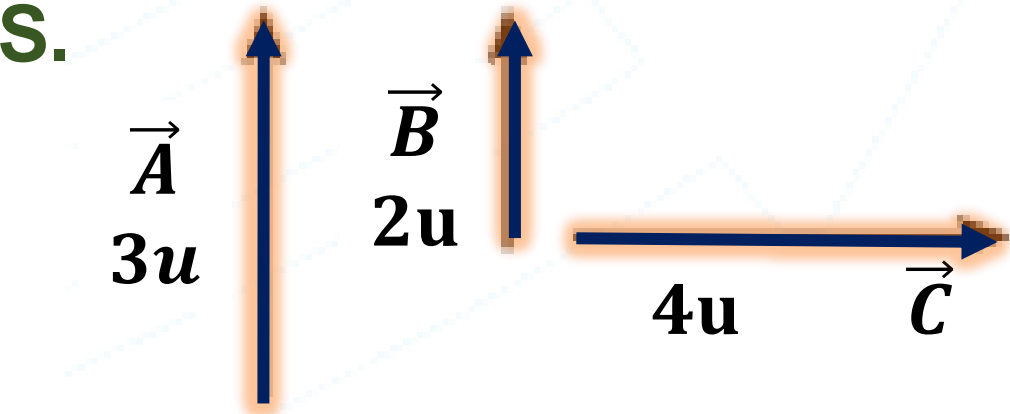
$$\vec{R} = -4\hat{i}\text{u} + 4\hat{j} \text{ u}$$

6

DETERMINE EL VECTOR RESULTANTE DEL CONJUNTO DE VECTORES MOSTRADOS.



RESOLUCIÓN



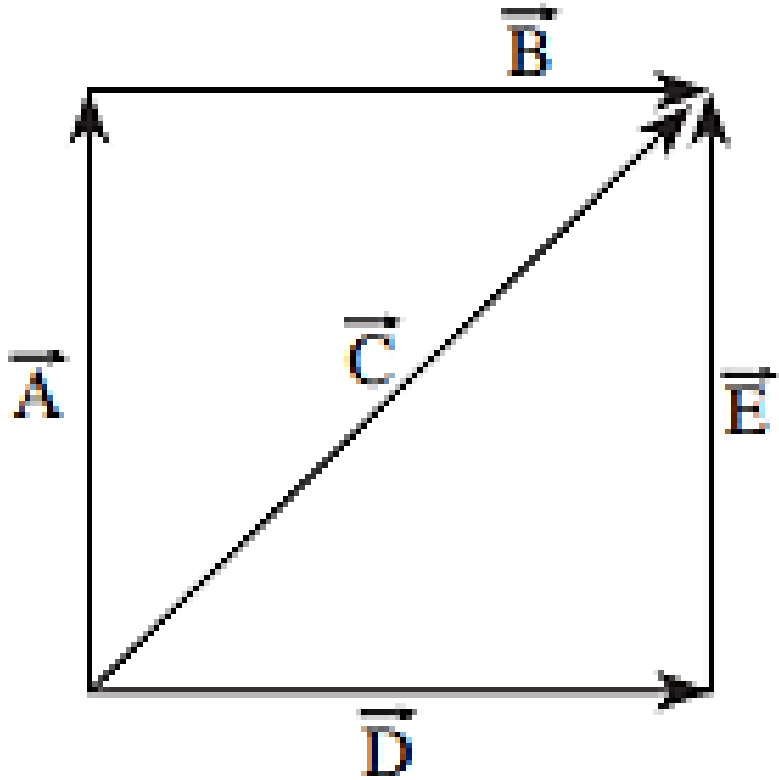
$$\vec{A} = 3\hat{j}u \quad \vec{B} = 2\hat{j}u \quad \vec{C} = 4\hat{i}u$$

$$\vec{R} = \vec{A} + \vec{B} + \vec{C}$$

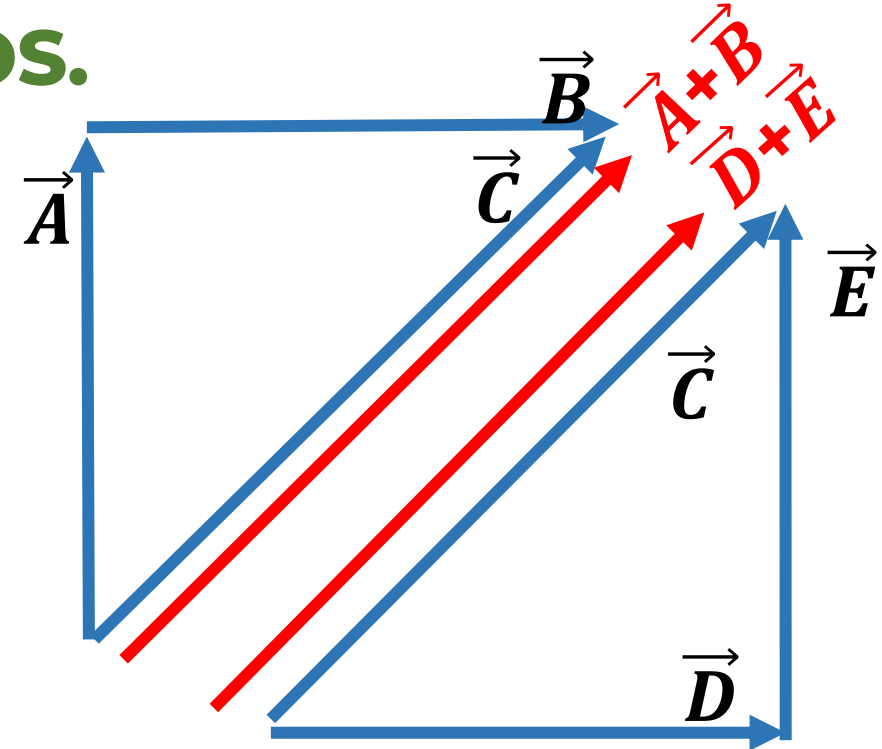
$$\vec{R} = (3\hat{j}u) + (2\hat{j}u) + (4\hat{i}u)$$

$$\vec{R} = 4\hat{i}u + 5\hat{j}u$$

7 EN LA FIGURA, DETERMINE EL VECTOR RESULTANTE DE LOS VECTORES MOSTRADOS.



RESOLUCIÓN

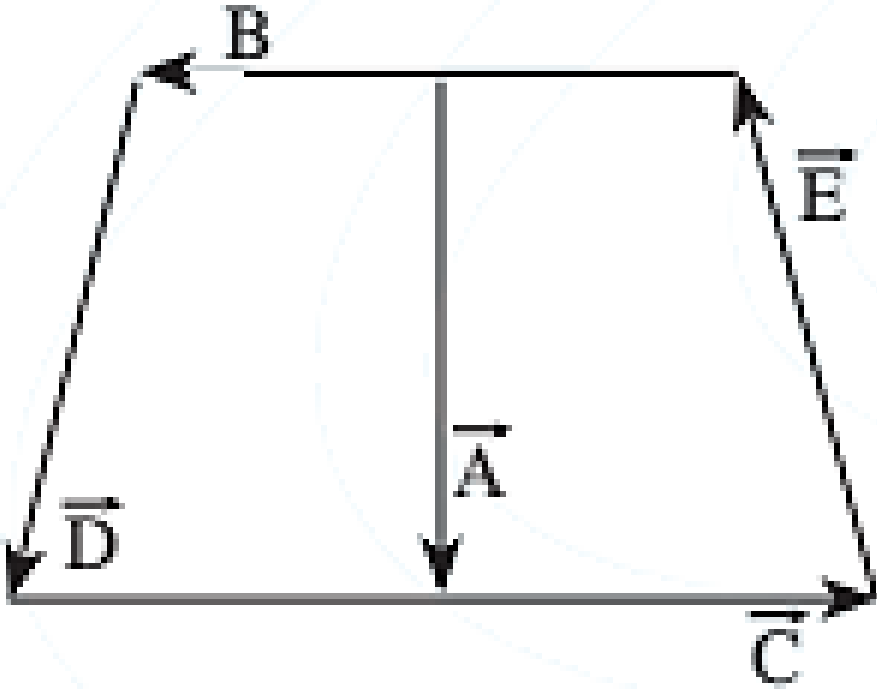


$$\begin{aligned}\vec{R} &= \vec{A} + \vec{B} + \vec{C} + \vec{D} + \vec{E} \\ \vec{R} &= \vec{A} + \vec{B} + \vec{C} + \vec{D} + \vec{E} \\ \vec{R} &= \vec{C} + \vec{C} + \vec{C}\end{aligned}$$

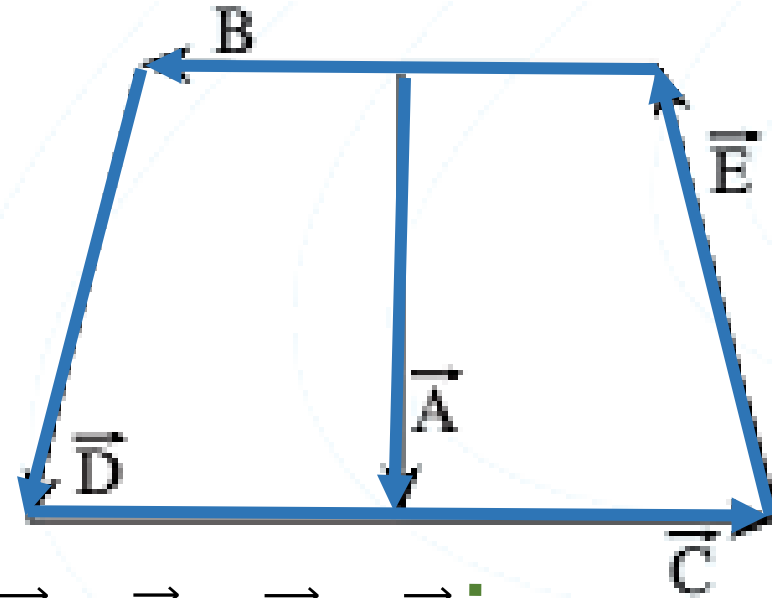
$$\vec{R} = 3\vec{C}$$

8

DETERMINE EL VECTOR RESULTANTE Y SU RESPECTIVO
MÓDULO SI $A=8u$ Y $B=6u$.



RESOLUCIÓN



$$\vec{R} = \vec{A} + \vec{B} + \vec{C} + \vec{D} + \vec{E}$$

$$\vec{R} = \vec{A} + \vec{B} + \vec{C} + \vec{D} + \vec{E}$$

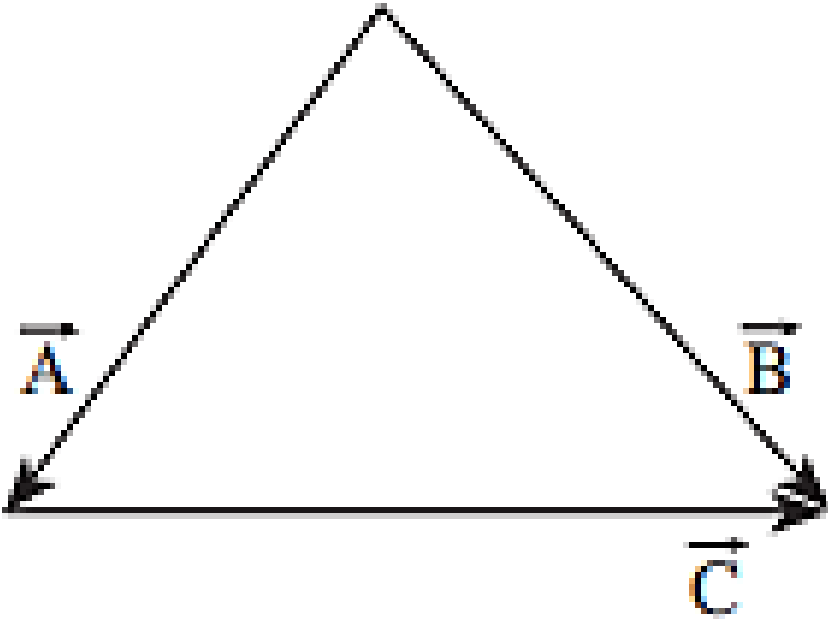
$$\vec{R} = \vec{A} + \vec{0}$$

$$\vec{R} = \vec{A}$$

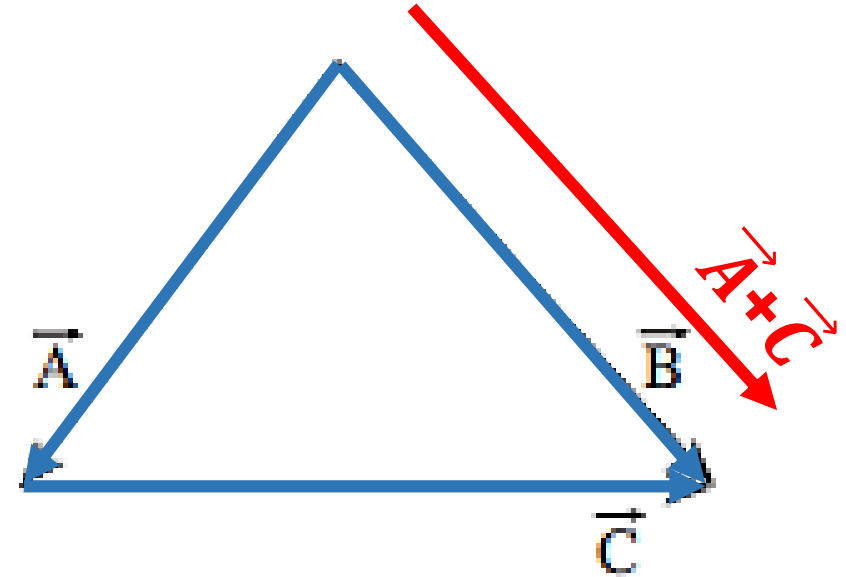
Módulo: $\vec{R} = \vec{A}$

$$R = 8u$$

9 DETERMINE EL VECTOR RESULTANTE DE LOS VECTORES MOSTRADOS.



RESOLUCIÓN



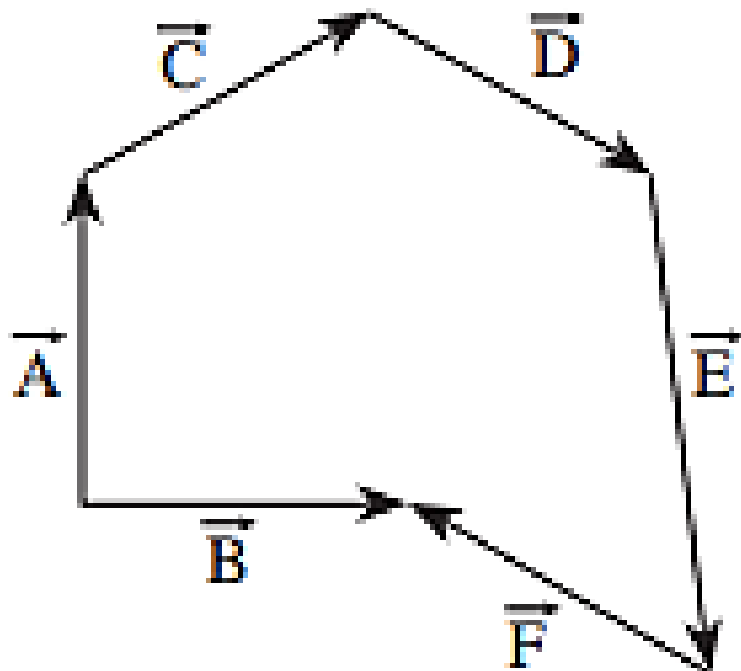
$$\vec{R} = \vec{A} + \vec{C} + \vec{B}$$

$$\vec{R} = \vec{A} + \vec{C} + \vec{B}$$

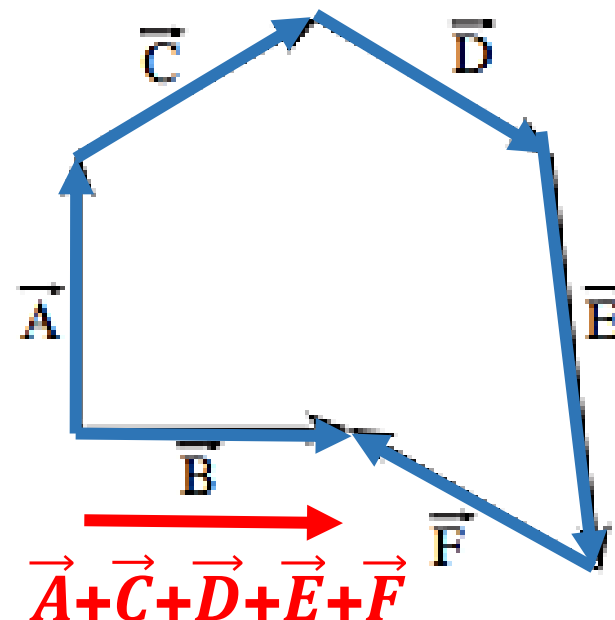
$$\vec{R} = \vec{B} + \vec{B}$$

$$\vec{R} = 2\vec{B}$$

1
0 DETERMINE EL MÓDULO DEL VECTOR RESULTANTE DE LOS VECTORES MOSTRADOS, $|A|=20\text{ u}$ y $|B|=25\text{ u}$.



RESOLUCIÓN



$$\begin{aligned}\vec{R} &= \vec{A} + \vec{B} + \vec{C} + \vec{D} + \vec{E} + \vec{F} \\ \vec{R} &= \vec{B} + \vec{A} + \vec{C} + \vec{D} + \vec{E} + \vec{F} \\ \vec{R} &= \vec{B} + \vec{B} \\ \vec{R} &= 2\vec{B}\end{aligned}$$

módulo $\vec{R} = 2\vec{B}$

$$R = 2(25\text{u})$$

$$R = 50\text{ u}$$

Se agradece su colaboración y participación durante el tiempo de la clase.

MUCHAS
Gracias!