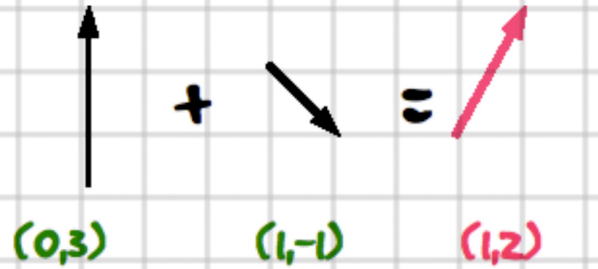
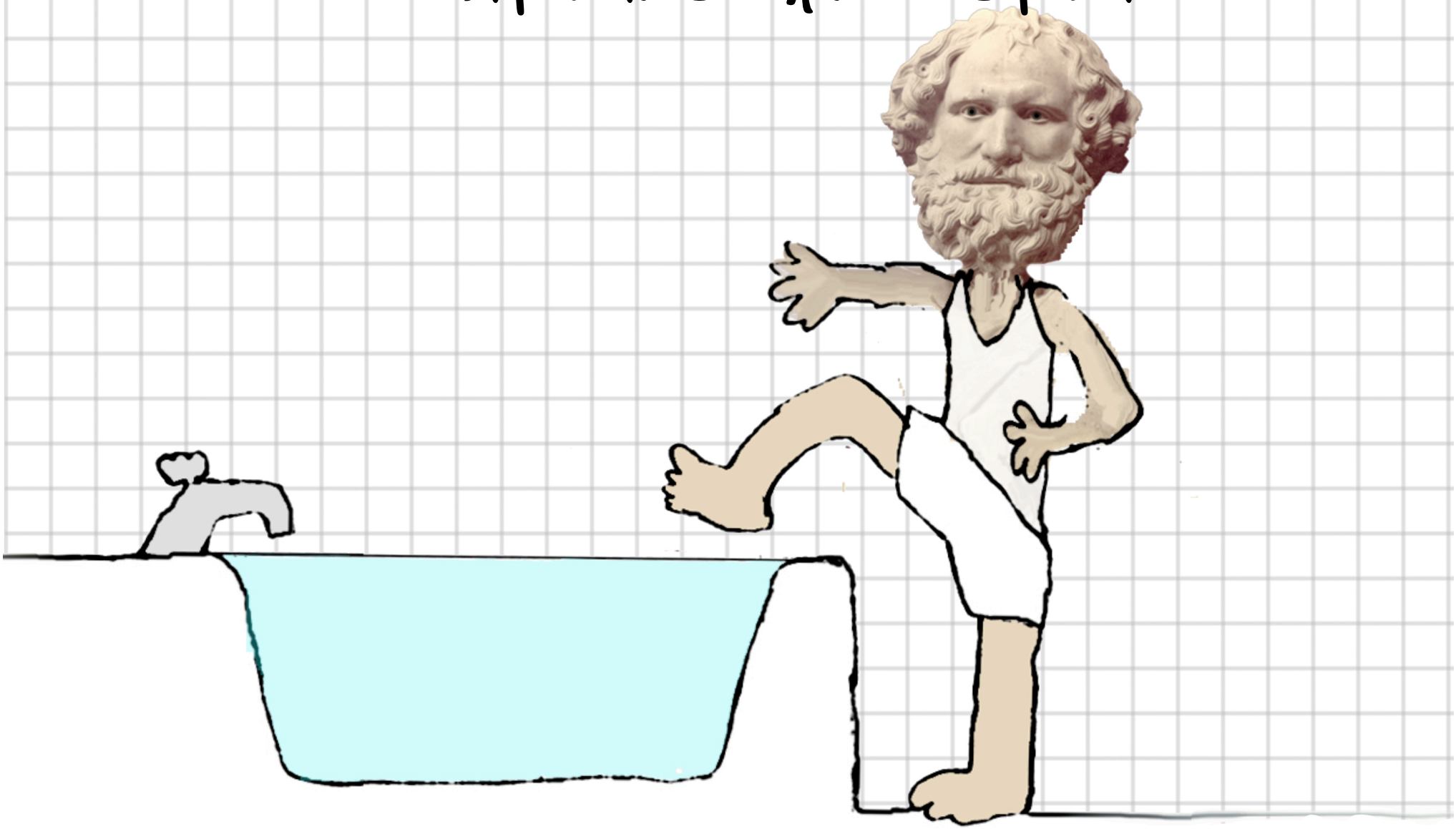
Esperimenti di Matematica con Materiali Semplici e Storia

Esperimenti di Matematica con Materiali Semplici e Storia



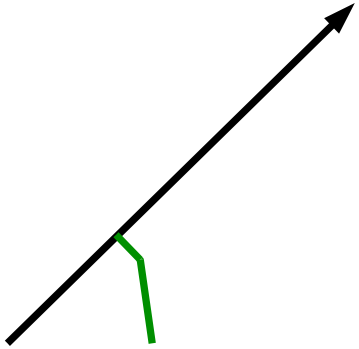
Esperimenti di Matematica con Materiali Semplici e Storia

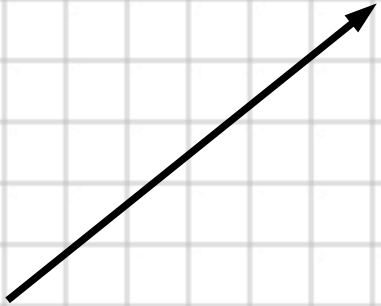
Esperimenti di Matematica con Materiali Semplici e Storia



Esperimenti di Matematica con Materiali Semplici e Storia

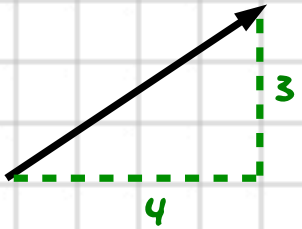
DEFINIZIONI





DEFINIZIONI

DATE
LE COMPONENTI
RICAVA
MODULO E ANGOLO



$a_x = 4$

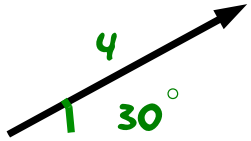
$a_y = 3$

segue

Modulo = 5

Angolo = $\tan^{-1}(3/4) = 36{,}8^\circ$

DATI
MODULO E ANGOLO
RICAVA
LE COMPONENTI



Modulo = 4

Angolo = 30°

segue

$a_x = a\cos(30) = 3{,}46$

$a_y = a\sin(30) = 2$

DEFINIZIONI

DATE
LE COMPONENTI
RICAVA
MODULO E ANGOLO

$a_x = 2$

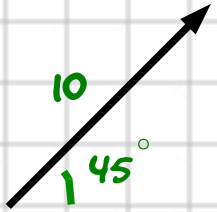
$a_y = -1$

segue

Modulo =

Angolo =

DATI
MODULO E ANGOLO
RICAVA
LE COMPONENTI



Modulo = 10

Angolo = 45°

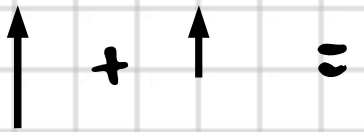
segue

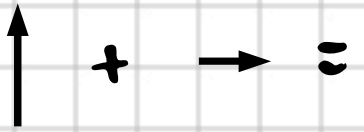
a_x =

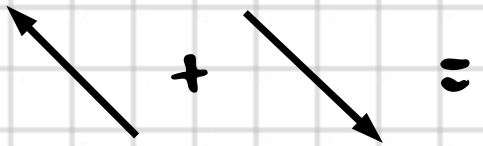
a_y =

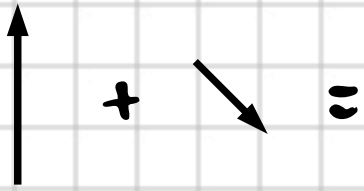
SOMME

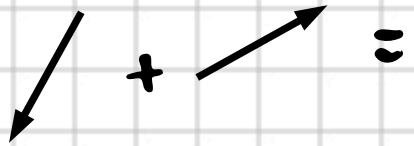
PhET Vector Addition

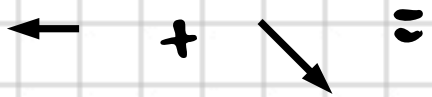


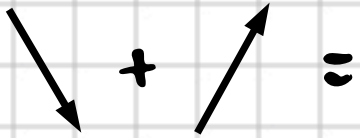




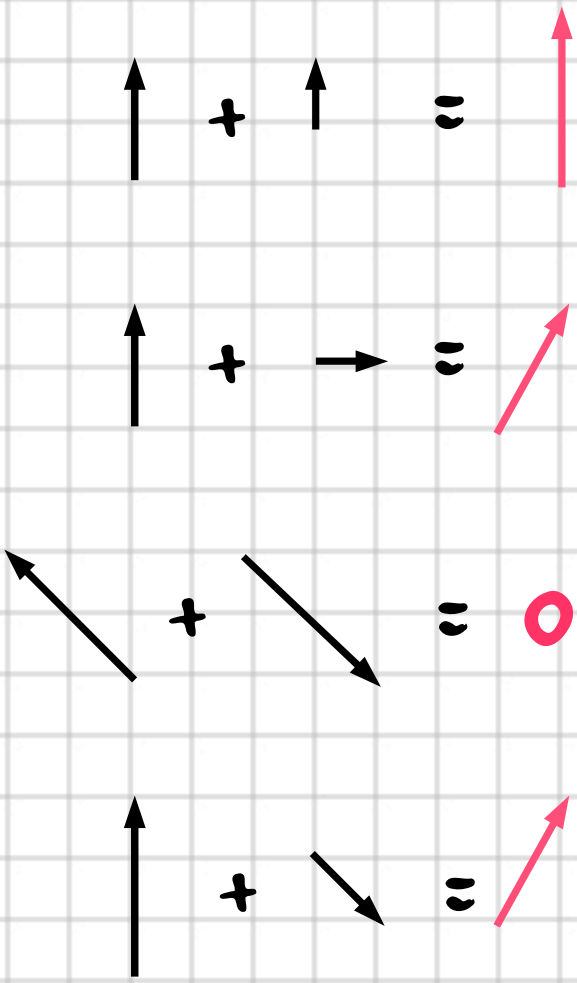


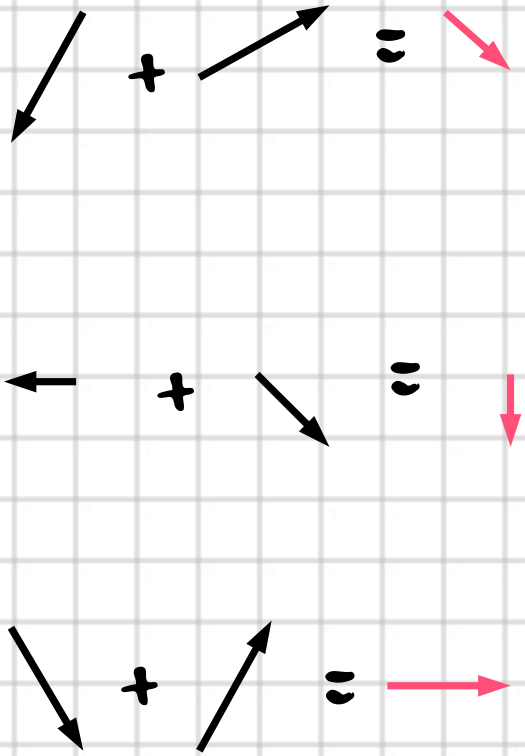






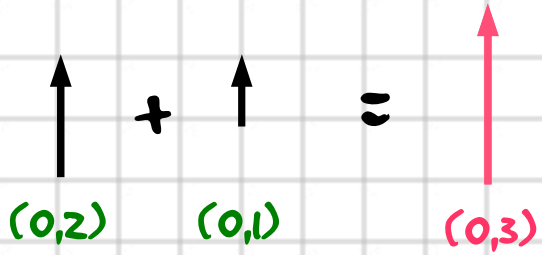
SOMME

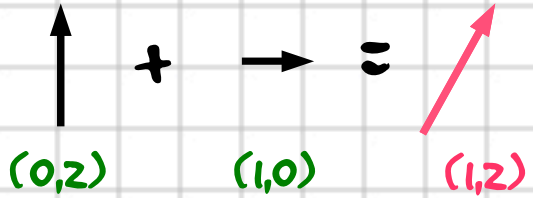


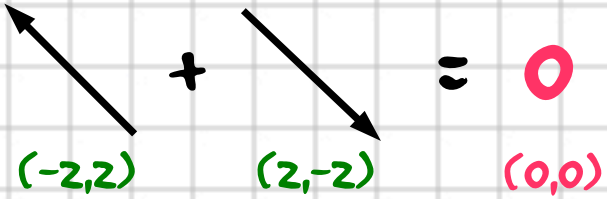


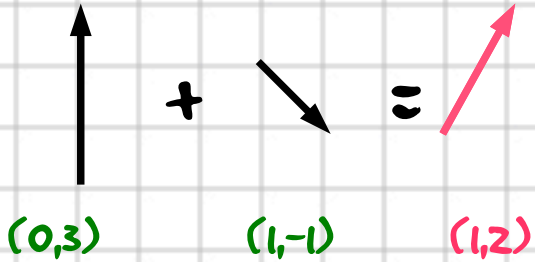
SOMME

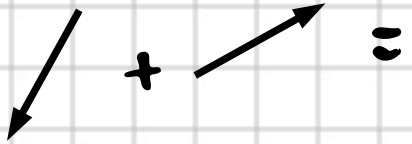
SCRIVI LE COMPONENTI

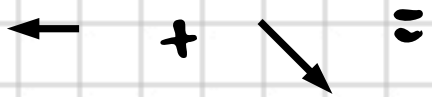


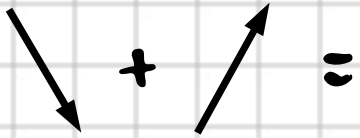






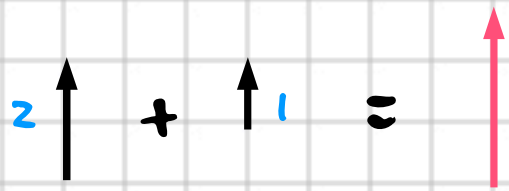


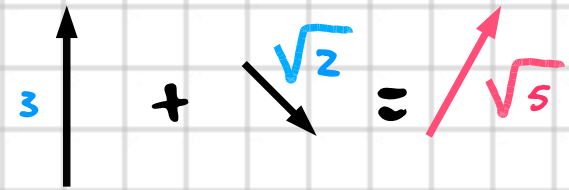


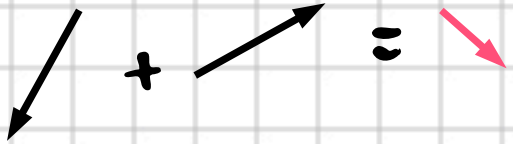


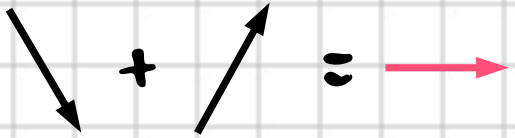
SOMME

SCRIVI I MODULI

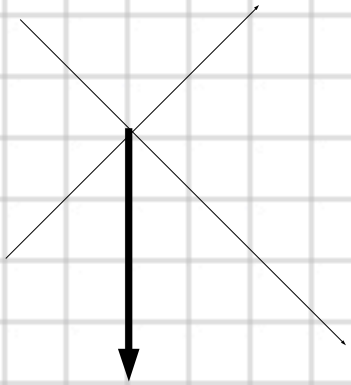


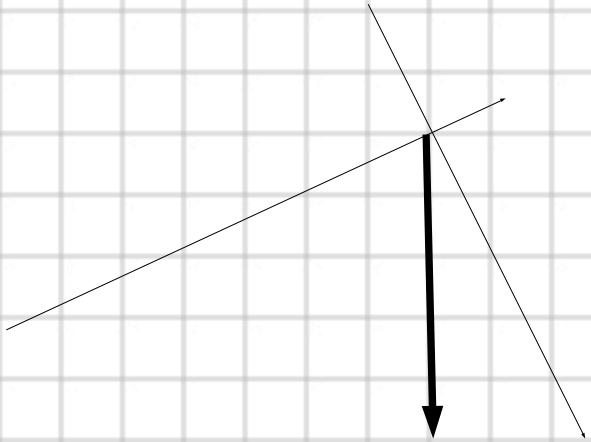






SCOMPOSIZIONE LUNGO DIREZIONI SCELTE





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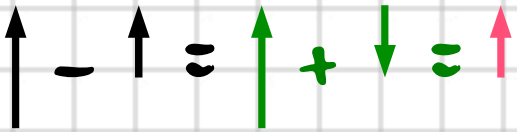
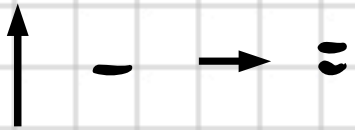
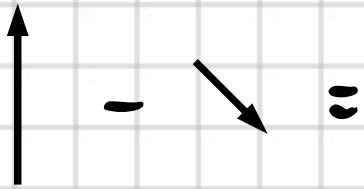
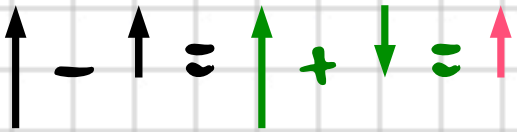


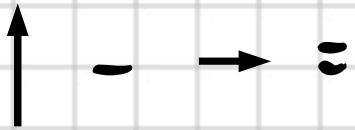


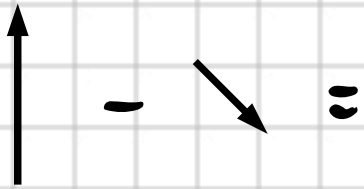


SOTTRAZIONI

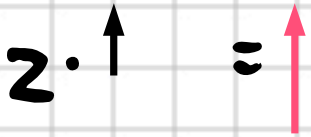
SCRIVI LE COMPONENTI



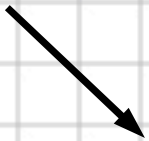




PRODOTTI per SCALARE

$2 \cdot$  $=$

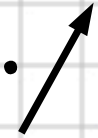
$-3 \cdot$ $=$

$\frac{1}{2} \cdot$  $=$

$-2 \cdot$  $=$

$-1 \cdot$  $=$

$3 \cdot$  $=$

$0 \cdot$  $=$

PRODOTTI per SCALARE

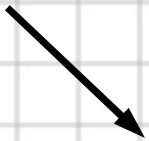
SCRIVI LE COMPONENTI

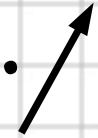
$2 \cdot$  $=$

$-1 \cdot$  $=$

$-3 \cdot$ $=$

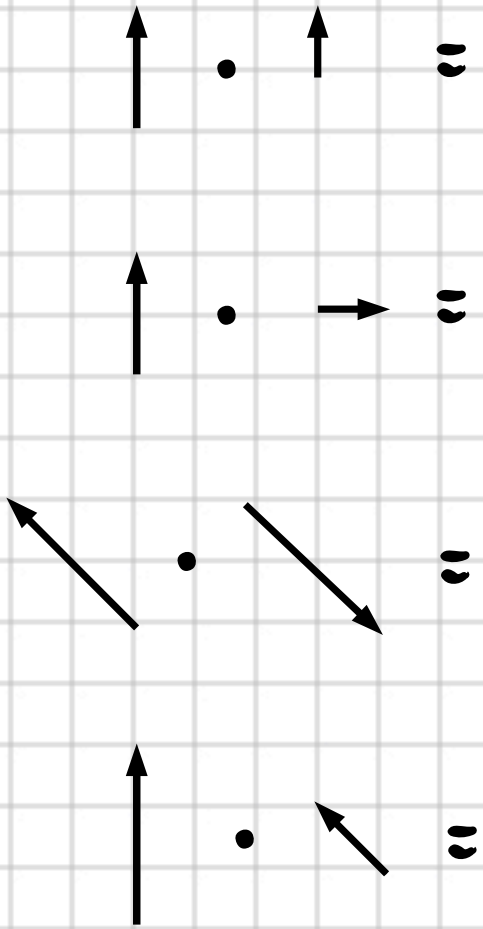
$3 \cdot$  $=$

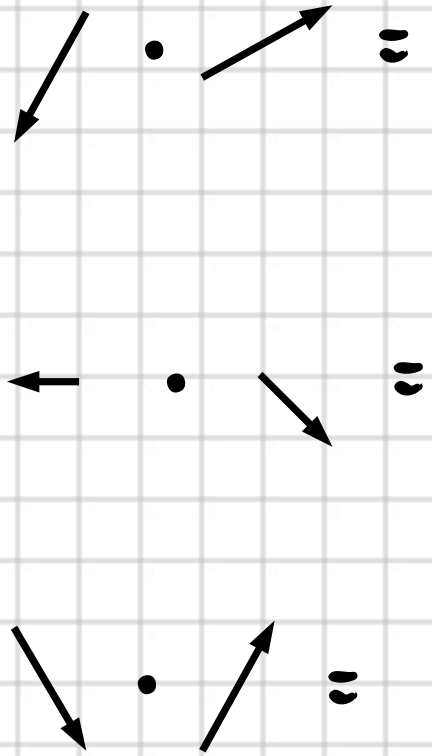
$\frac{1}{2} \cdot$  $=$

$0 \cdot$  $=$

$-2 \cdot$  $=$

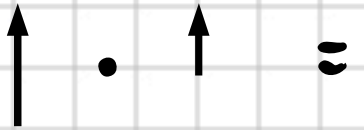
PRODOTTI SCALARI

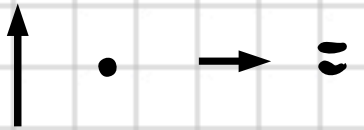


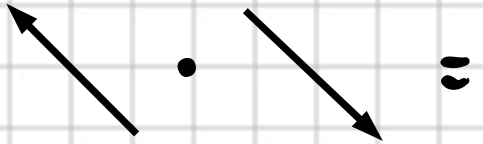


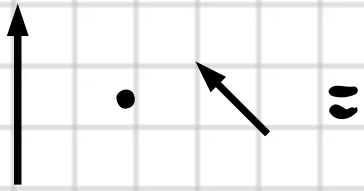
PRODOTTI SCALARI

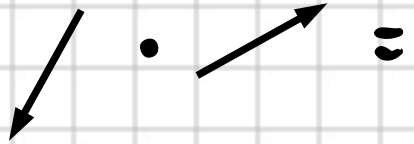
SCRIVI LE COMPONENTI

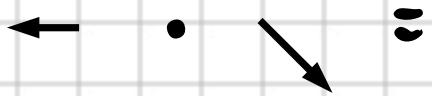


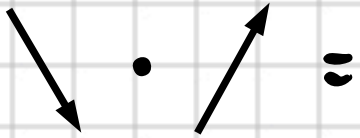






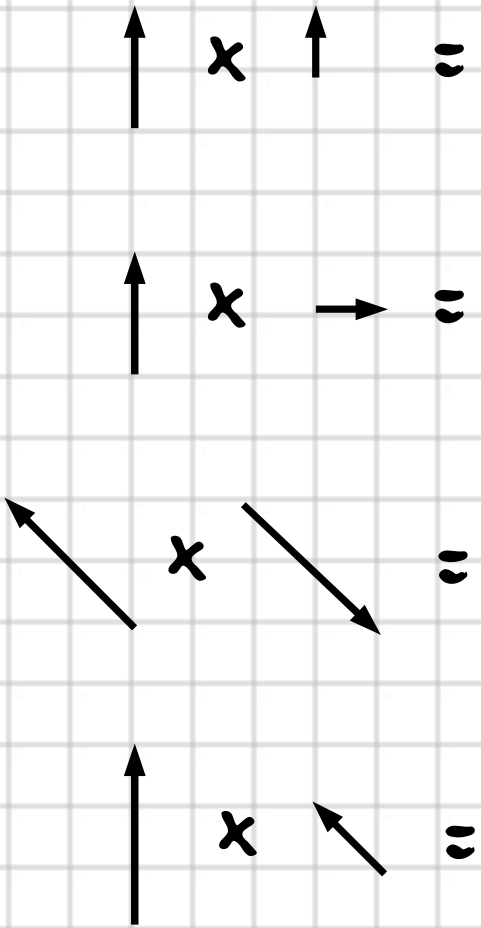


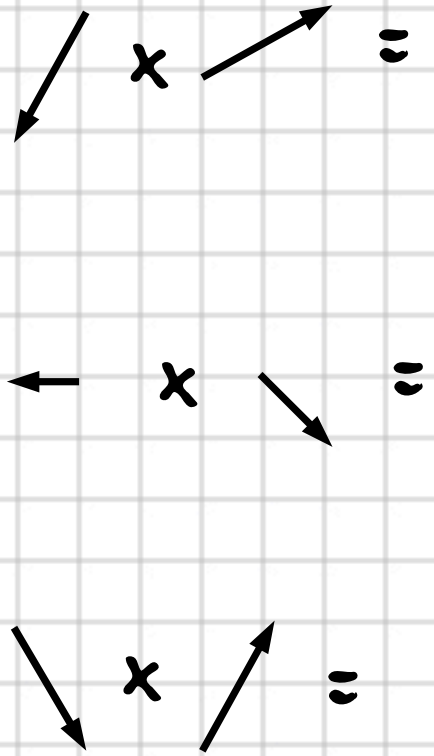




$$\vec{a} \cdot \vec{b} = a_x b_x + a_y b_y$$

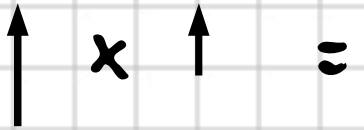
PRODOTTI VETTORIALI

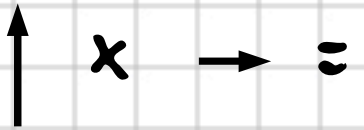


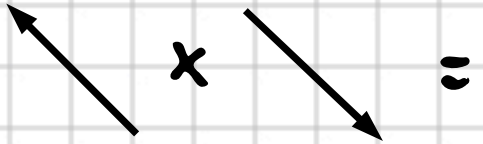


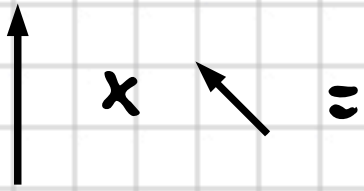
PRODOTTI VETTORIALI

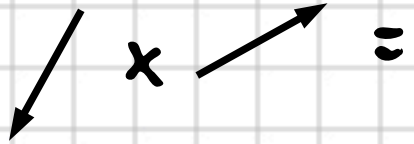
SCRIVI LE COMPONENTI

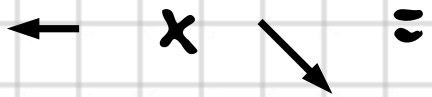


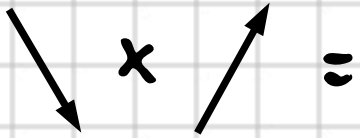












NEGATIVO
ENTRANTE

$$\vec{a} \times \vec{b} = a_x b_y - a_y b_x$$