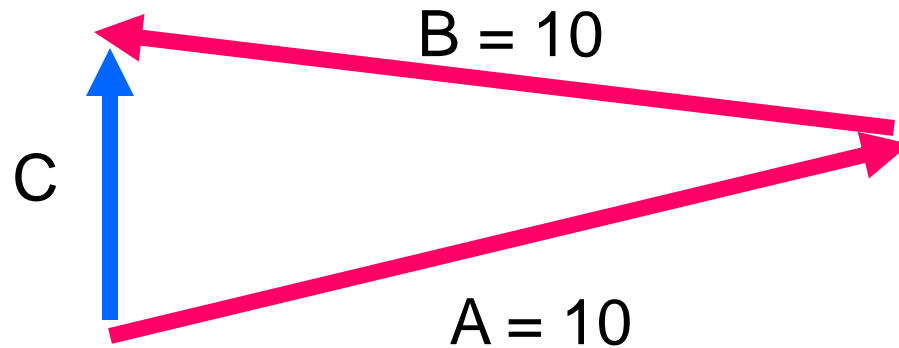


- Adding vectors is not the same as adding numbers

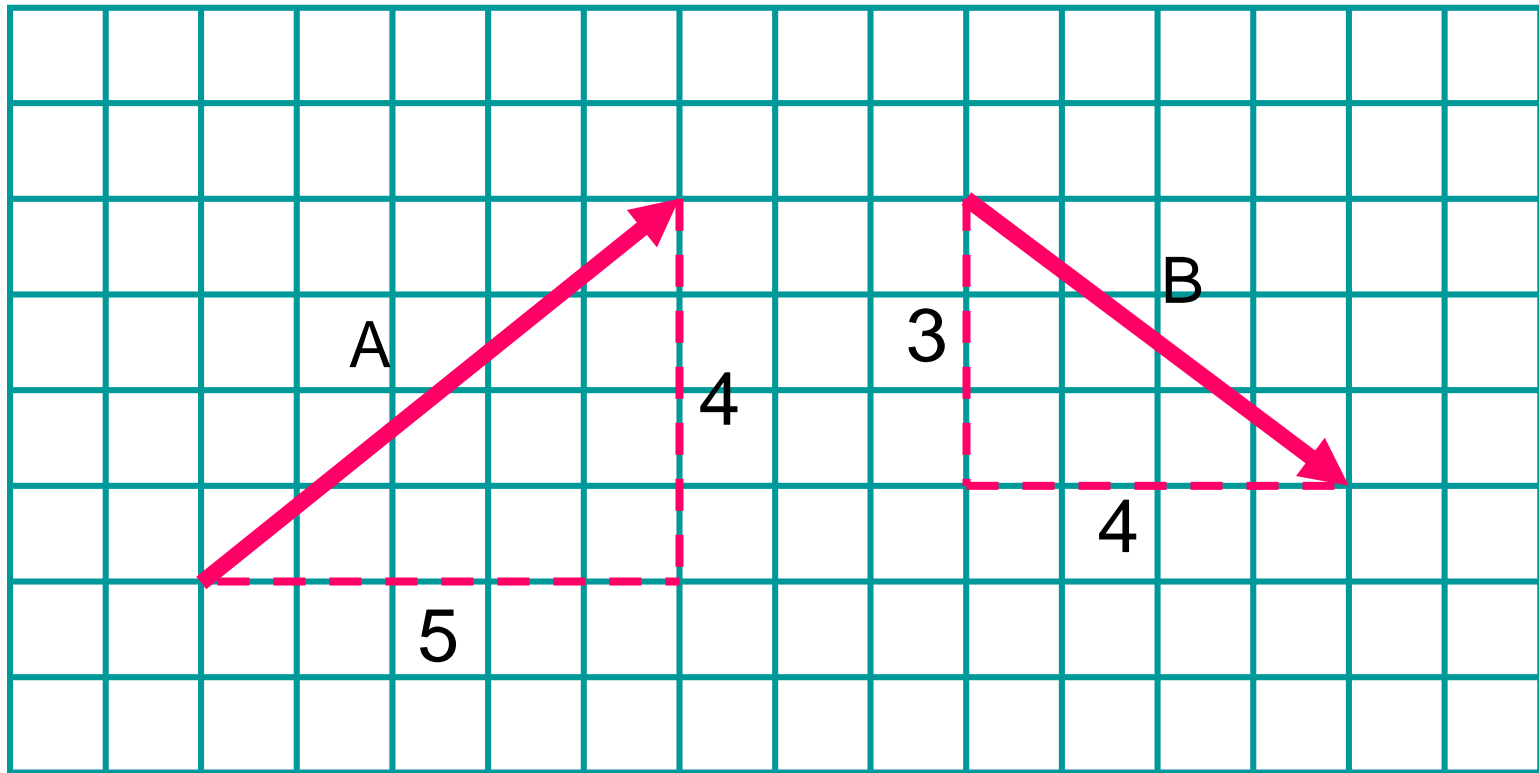


- Obviously $C \neq 10 + 10$
- How do we add vectors numerically?

\hat{i}, \hat{j} Notation

$+ \hat{i}$ right (\rightarrow) $- \hat{i}$ left (\leftarrow)

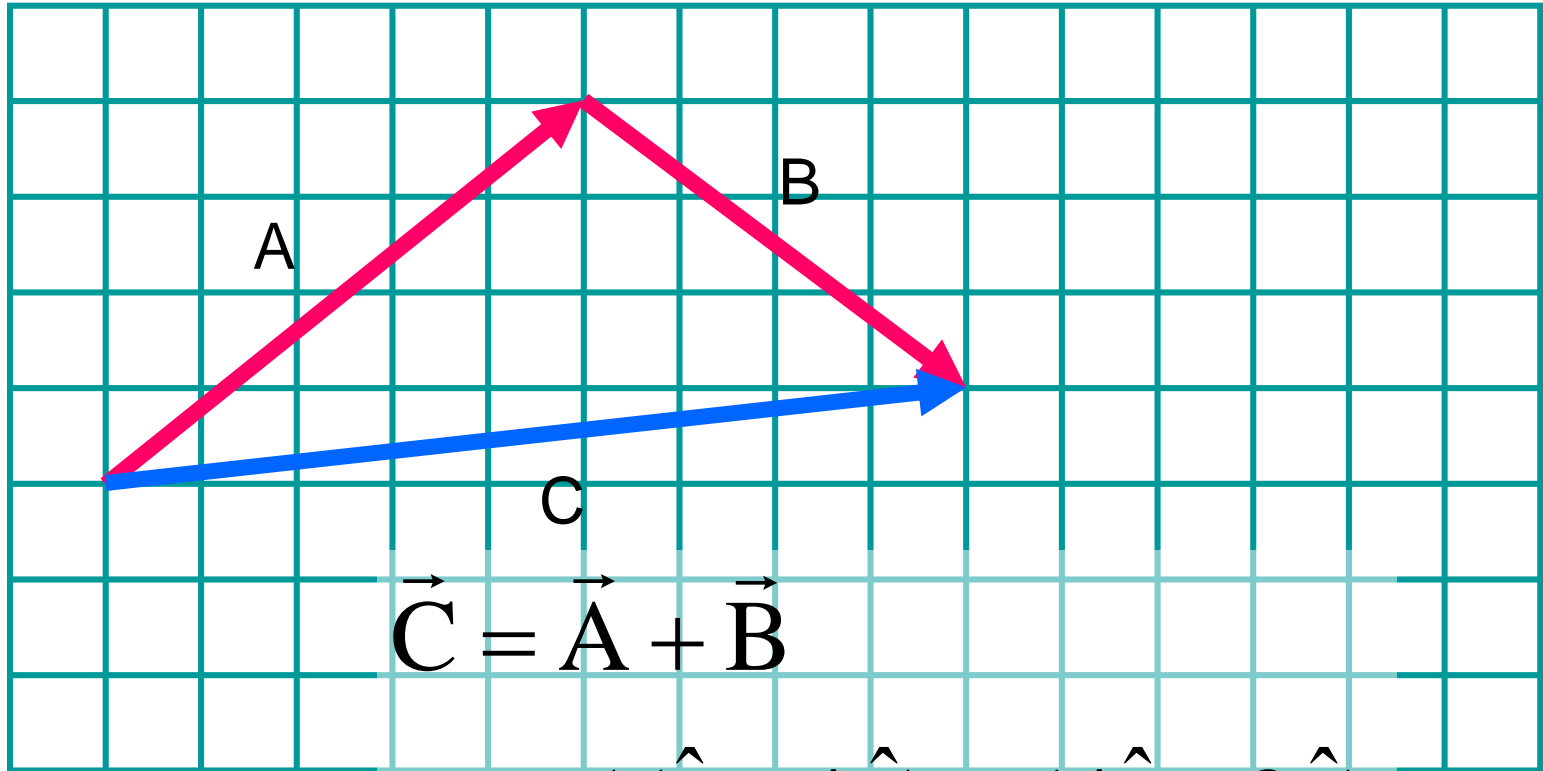
$+ \hat{j}$ up (\uparrow) $- \hat{j}$ down (\downarrow)



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

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

Numerical Addition of Vectors

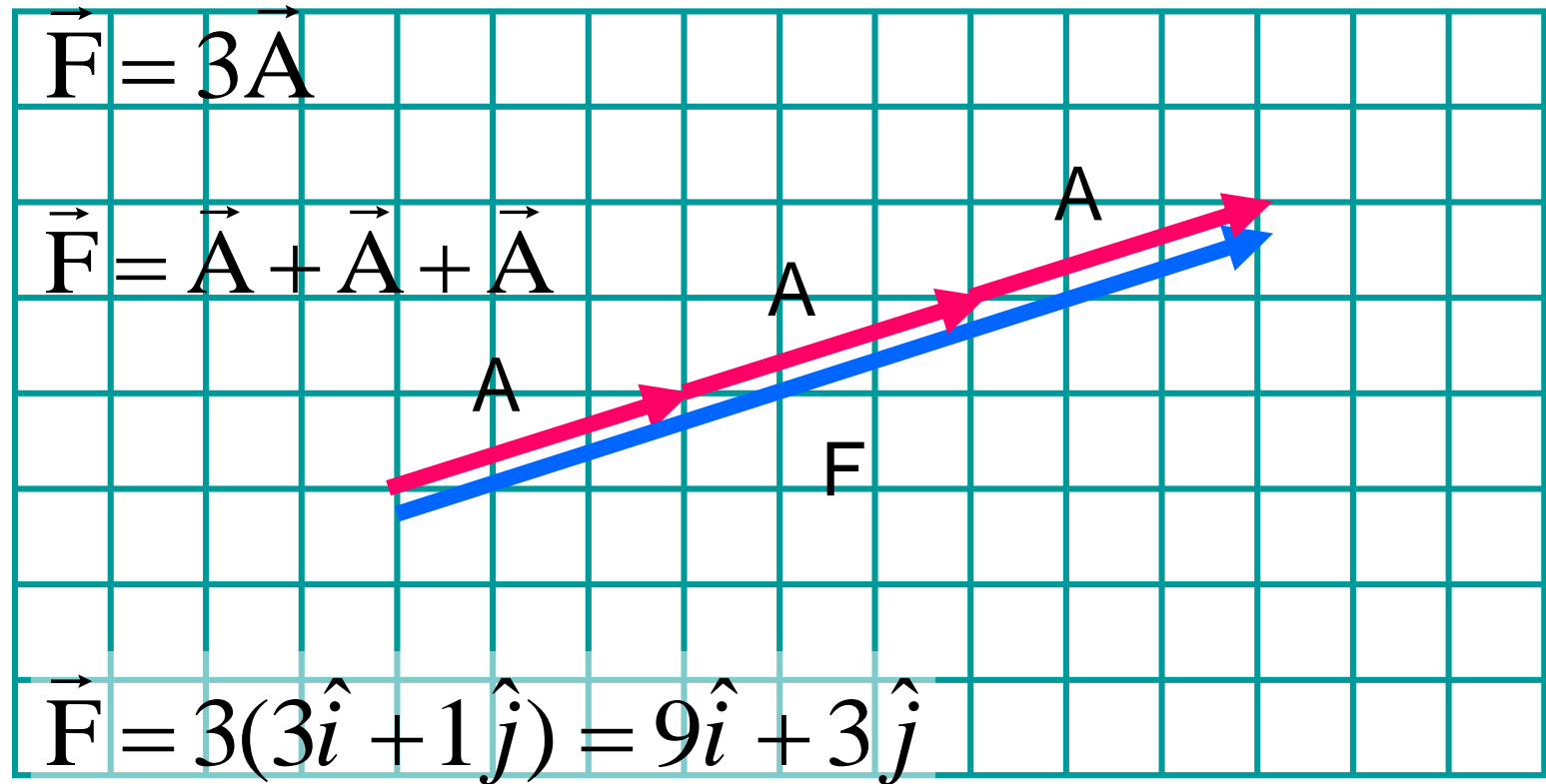


$$\vec{C} = \vec{A} + \vec{B}$$

$$= (5\hat{i} + 4\hat{j}) + (4\hat{i} - 3\hat{j})$$

$$= 9\hat{i} + 1\hat{j}$$

Multiplication by a scalar



Numerical Subtraction of Vectors

