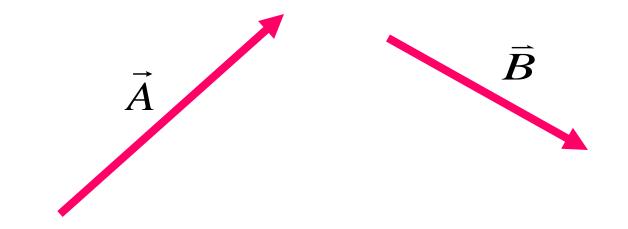
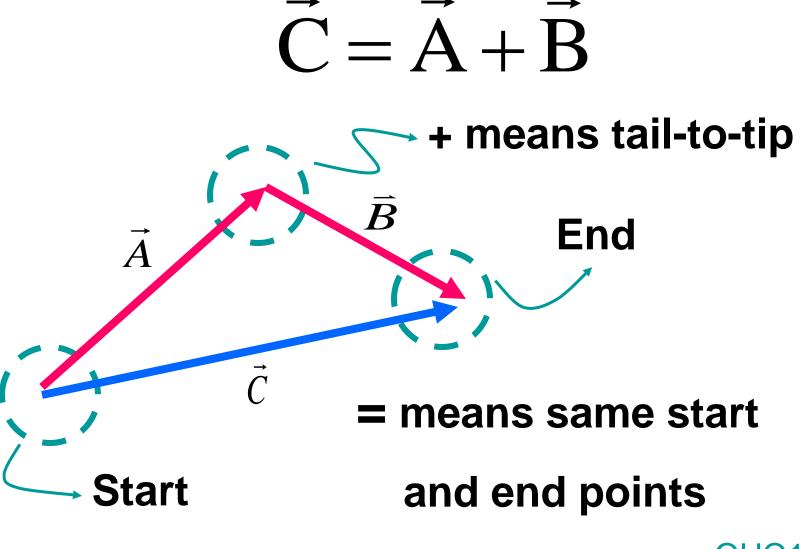
Vectors have magnitude and direction



• Symbols: \vec{A} , \vec{B} Without arrow, just magnitude or size. $A = |\vec{A}|$

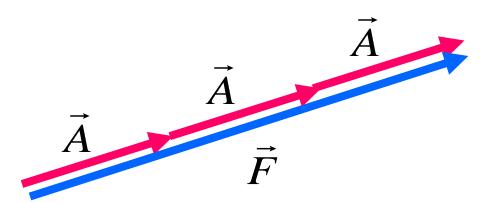


OHQ1 OHQ2

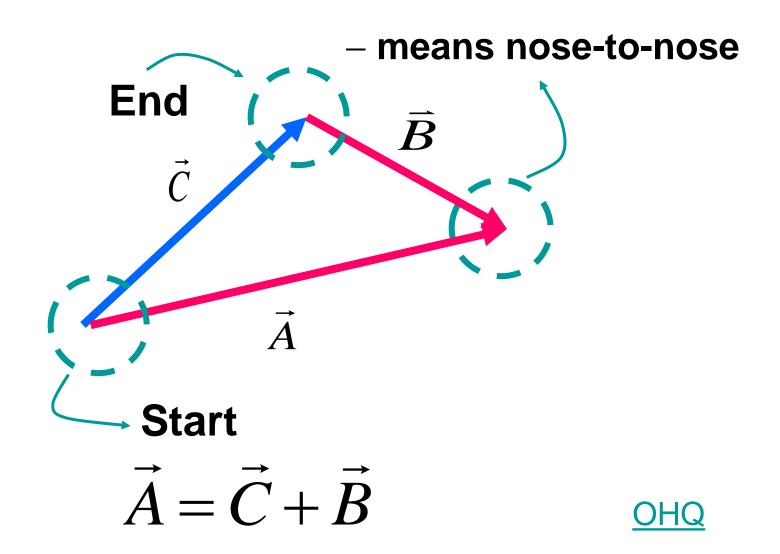
Multiplication by a scalar

$$\vec{F} = 3\vec{A}$$

$$\vec{F} = \vec{A} + \vec{A} + \vec{A}$$

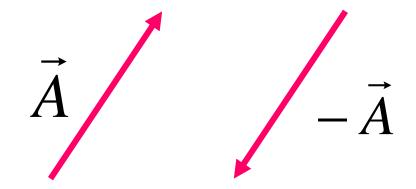


Subtraction $\vec{C} = \vec{A} - \vec{B}$



Negative Vectors

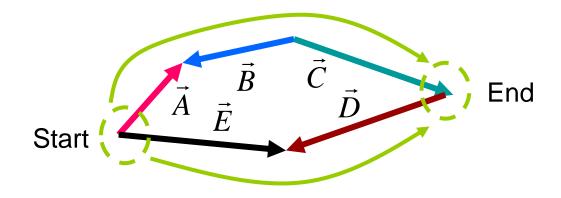
The negative of a vector has the same size but points in the opposite direction.



Note
$$\vec{A} + (-\vec{A}) = 0$$

General method

- Pick any start and end points
- Following an arrow in same direction is +
- Follow in opposite direction is –



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