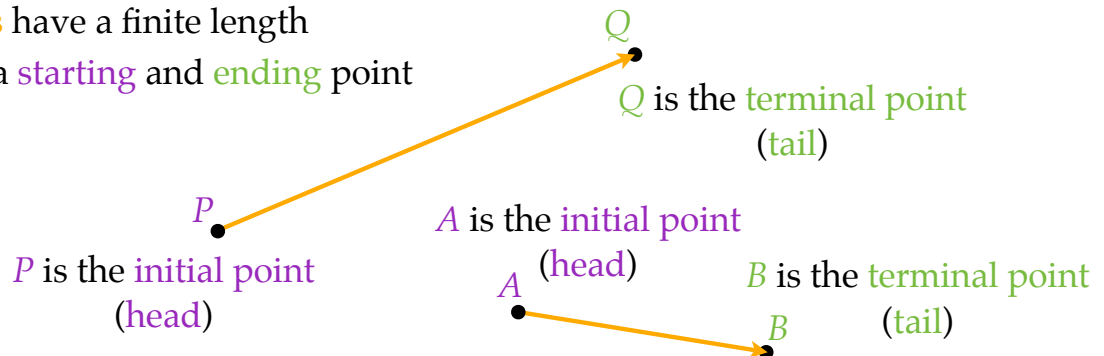


A **vector** is a quantity with two aspects
magnitude and **direction**

Vectors are drawn as “directed line segments”
(arrows or rays)

Vectors have a finite length

Vectors have a **starting** and **ending** point



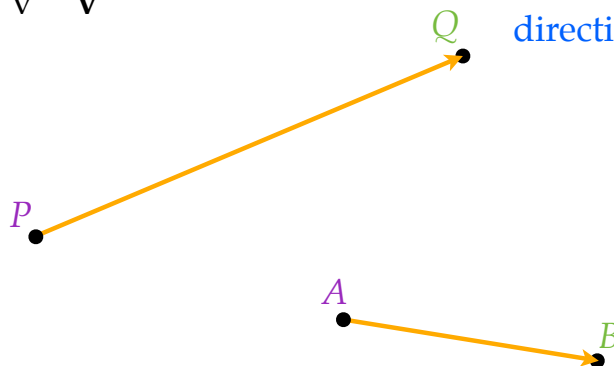
A **vector** is a quantity with two aspects
magnitude and **direction**

Vector Notation

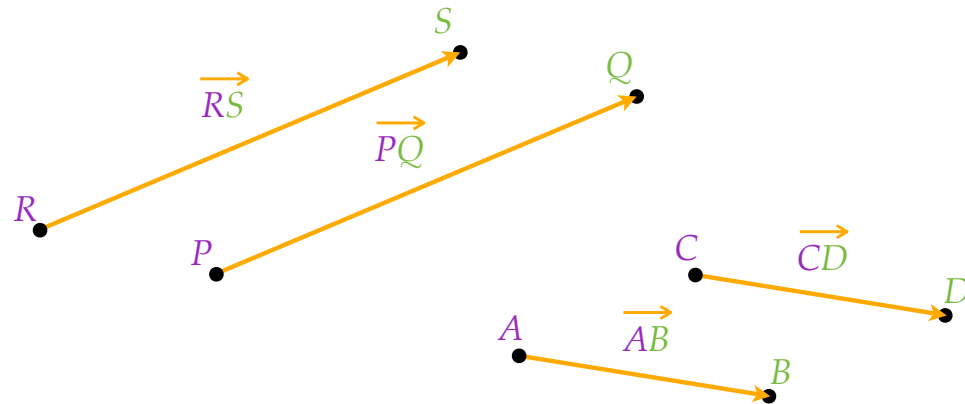
$\overrightarrow{PQ}$ $\overrightarrow{PQ}$ $\vec{v}$ $\vec{v}$ $\mathbf{v}$

Magnitude
distance from P to Q
length of **vector**

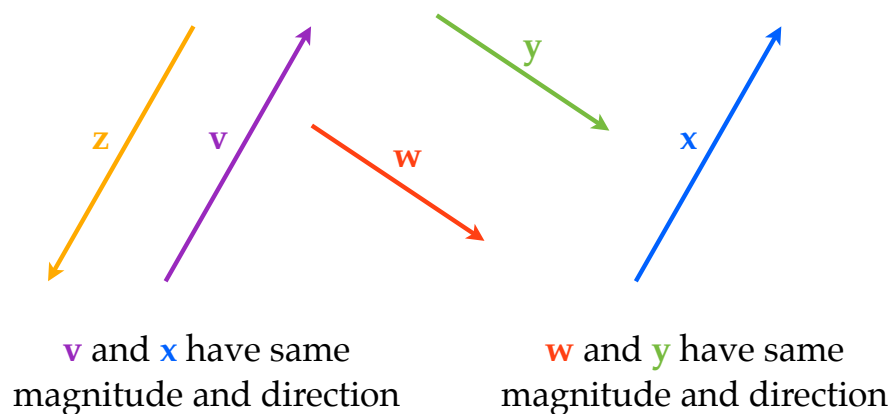
Direction
direction from P to Q



Two **vectors** are equal if they have the same **magnitude** (length) and **direction**.

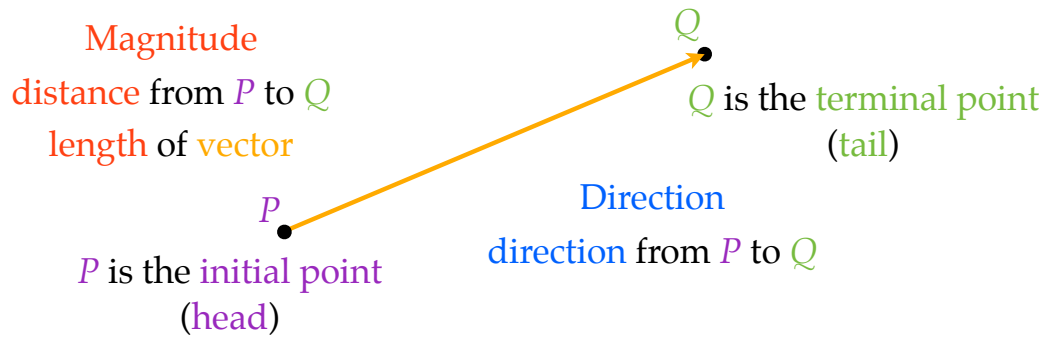


Two **vectors** are equal if they have the same **magnitude** (length) and **direction**.



A **vector** is a quantity with two aspects
magnitude and **direction**

Vectors have a **starting** and **ending** point



Two **vectors** are equal if they have the same **magnitude** (**length**) and **direction**.