Vectors

[2024-08-15 Thu 13:00]

1 Generalized Coordinate System

You can define your own axes, must be orthagonal; useful because flexible

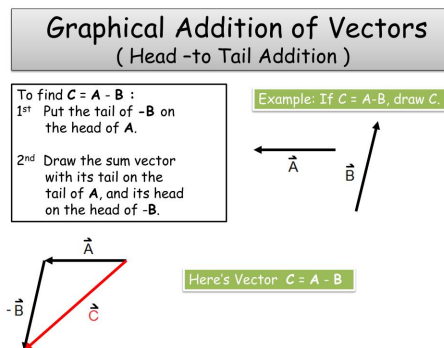$\hat{i}$ and $\hat{j}$ are typically the axes of this system

1.1 Unit Vector

only one $\hat{i} \rightarrow (1,0)$; $\hat{j} \rightarrow (0,1)$

1.2 Scalar

no direction, only magnitude

2 Adding Vectors

2.1 Resultant Vector

goes from start of addition to the end (pic rel)

3 Exercises

Vector or Scalar?	Answer
Velocity	V
Force	V
Time	Both
Acceleration	V
Mass	S
Distance	V
Displacement (x)	V
Momentum	V
Speed	S
Length	S