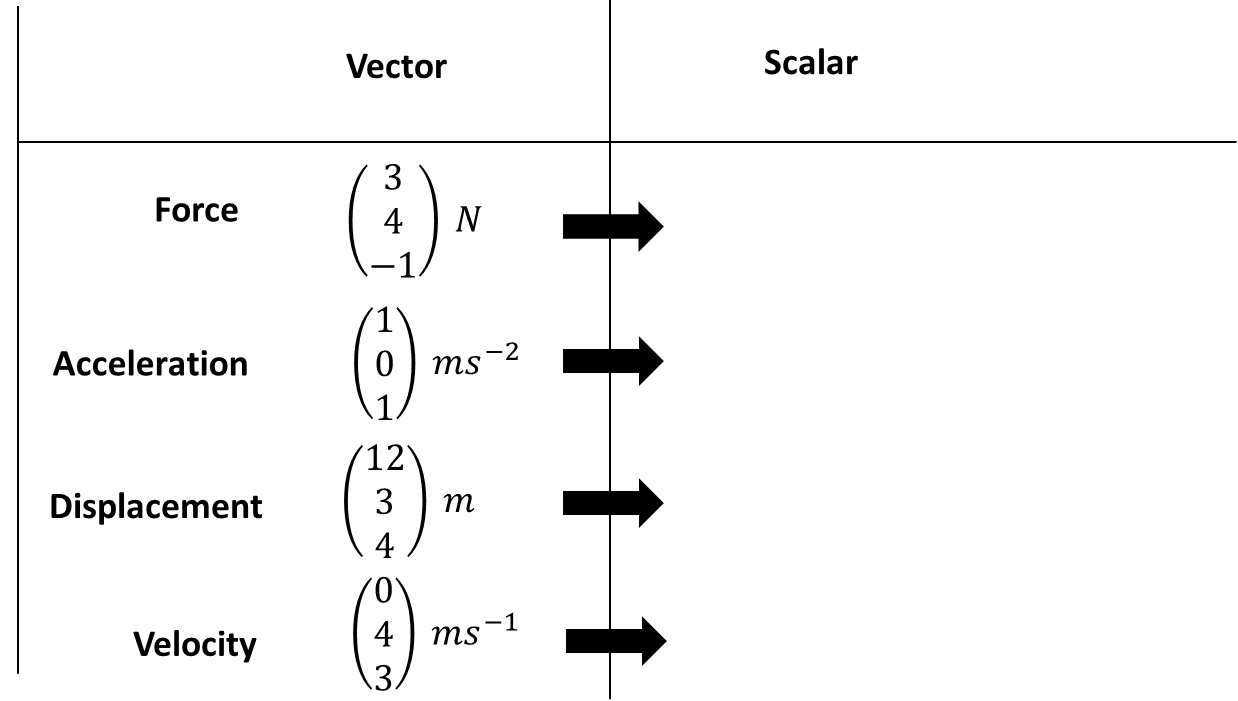
**Application to Mechanics**

Out of displacement, speed, acceleration, force, mass and time, all but mass and time are vectors. Clearly these can act in 3D space.



**Example**

[Textbook] **A particle of mass 0.5 kg is acted on by three forces.**

1. **Find the resultant force acting on the particle.**
2. **Find the acceleration of the particle, giving your answer in the form ms-2.**
3. **Find the magnitude of the acceleration.**

**Given that the particle starts at rest,**

**d. Find the distance travelled by the particle in the first 6 seconds of its motion.**

Ex 12D p.348-349