1.3 - Vectors and scalars

Understandings:

- Vector and scalar quantities
- Combination and resolution of vectors

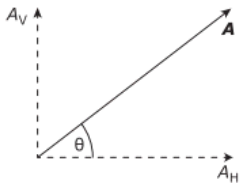
Applications and skills:

- Solving vector problems graphically and algebraically

Guidance:

- Resolution of vectors will be limited to two perpendicular directions
- Problems will be limited to addition and subtraction of vectors and the multiplication and division of vectors by scalars

Data booklet reference:



- $A_H = A\cos\theta$
- $A_v = A\sin\theta$

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Vectors and scalar quantities

- A **vector quantity** is one which has a magnitude (size) and a spatial direction.
- A **scalar quantity** has only magnitude (size).

Examples of scalar quantities

Speed, Distance, Time, and Mass

Examples of vector quantities

Velocity, displacement, force, weight and acceleration

- A vector can be in any direction
- Signs can be used to signify what direction the vector is in

Be able to:

- Distinguish between vector and scalar quantities
- Identify vector and scalar quantities

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