

B1 perform vector analysis in one or two dimensions

Vocabulary

orthogonal components, resultant vector, scalar, vector

Knowledge

- scalars and vectors
- resolving a vector into two orthogonal components
- addition of two or more vectors
- subtraction of two vectors

Skills and Attitudes

- write vector equations and create vector diagrams
- use vector diagrams to solve problems
- verify relationships (e.g., linear, inverse, square, and inverse square) between variables
- use models (e.g., physics formulae, diagrams, graphs) to solve problems
- conduct appropriate experiments
- systematically gather and organize data from experiments
- use graphical methods to analyse results of experiments
- use appropriate units and metric prefixes

- identify scalars and vectors
- resolve a vector into two orthogonal components using a diagram and/or trigonometry
- write equations describing the addition of two or more vectors
- write equations describing the subtraction of two vectors
- add or subtract vectors using vector diagrams and/or trigonometry
- identify the resultant vector on a vector diagram

