

Vectors



Step 3:
Use vectors to
describe paths

Express any required path in terms of the vectors given
Break down possible paths into separate vectors

Step 2:
represent vectors as
direction and
movement

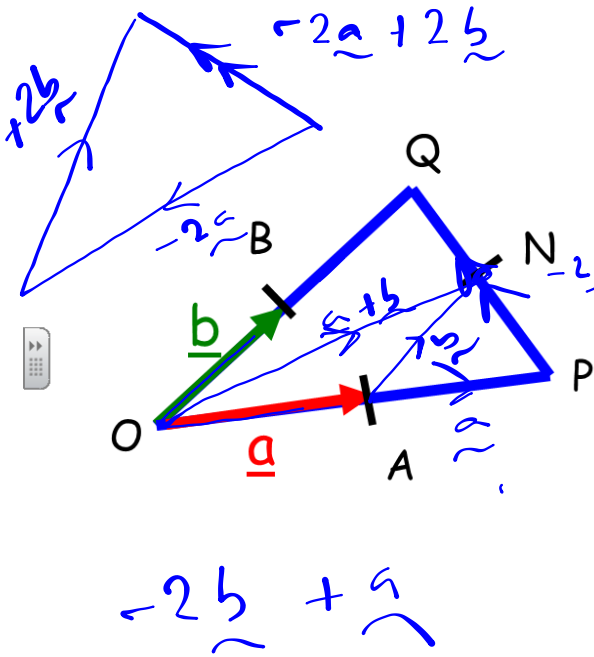
Manipulate vectors to create or work out a **resultant**
Understand addition, subtraction and multiplication of vectors
recognise how vectors are labelled



Step 1:
Translate object by a
given vector

apply a vector as a movement
interpret a vector to the correct movements
Know what a vector is

Rewrite the following vectors in terms of \underline{a} and \underline{b}

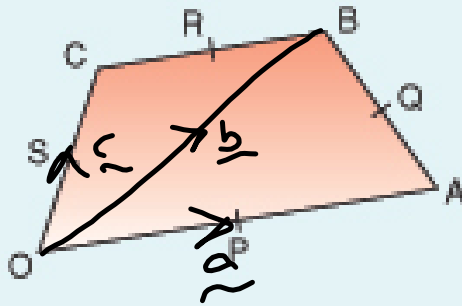


- a. $AP = \underline{a}$
- b. $AB = -\underline{a} + \underline{b}$
- c. $OQ = 2\underline{b}$
- d. $PO = -2\underline{a}$ $\vec{OP} = 2\underline{a}$
- e. $PQ = -2\underline{a} + 2\underline{b}$
- f. $PN = -\underline{a} + \underline{b}$
- g. $ON = \underline{b} + \underline{a}$
- h. $AN = \underline{b}$
- i. $BP = -\underline{b} + 2\underline{a}$
- j. $QA = \underline{a} - 2\underline{b}$

HOME

Vectors

1 OABC is a quadrilateral, $\vec{OA} = \mathbf{a}$, $\vec{OB} = \mathbf{b}$ and $\vec{OC} = \mathbf{c}$.



P, Q, R, S are the mid-points of OA, AB, BC and OC respectively.

- (a) Find, in terms of \mathbf{a} , \mathbf{b} and \mathbf{c} :
- (i) \vec{OP} (ii) \vec{AB} (iii) \vec{AQ} (iv) \vec{PQ} (v) \vec{SR}
- (b) Prove that PQ is parallel to SR.
- (c) What type of quadrilateral is PQRS?