

Summer Term Maths Year 10

Column vectors

Day

4

Week 7

- 1 Draw the following vectors on the grid below.

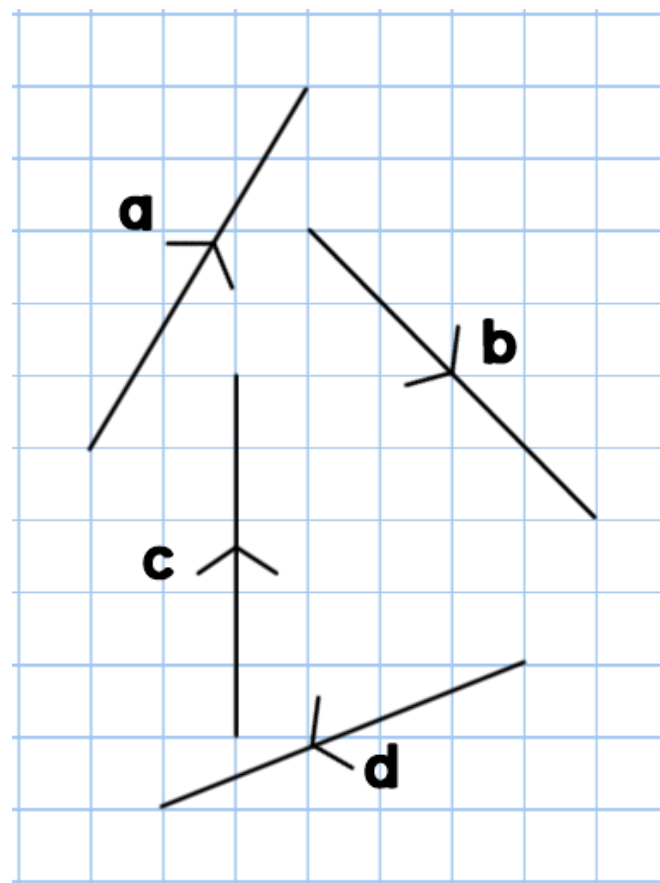
$$\mathbf{a} = \begin{pmatrix} 4 \\ 2 \end{pmatrix}$$

$$\mathbf{b} = \begin{pmatrix} 2 \\ -5 \end{pmatrix}$$

$$\mathbf{c} = \begin{pmatrix} -4 \\ 3 \end{pmatrix}$$



- 2 Write the column vector each of the vectors shown.



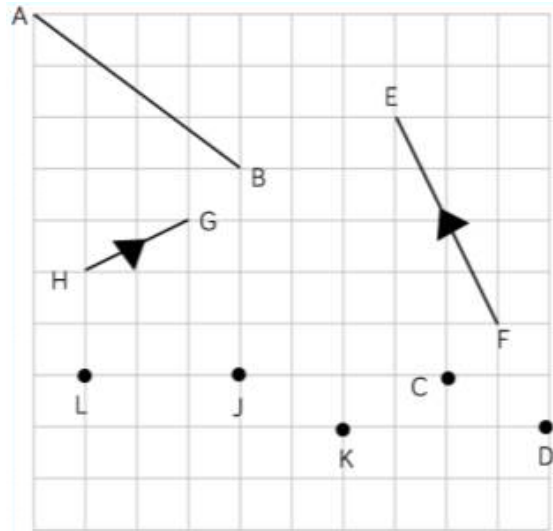
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- Add an arrow onto the line segment to represent \overrightarrow{AB} .
- Write \overrightarrow{AB} as a column vector.
- Teddy thinks vector \overrightarrow{EF} is shown on the diagram. Is he right? Explain your answer.
- Represent the vectors \overrightarrow{CD} and \overrightarrow{JK} on the diagram. What do you notice about them?

4

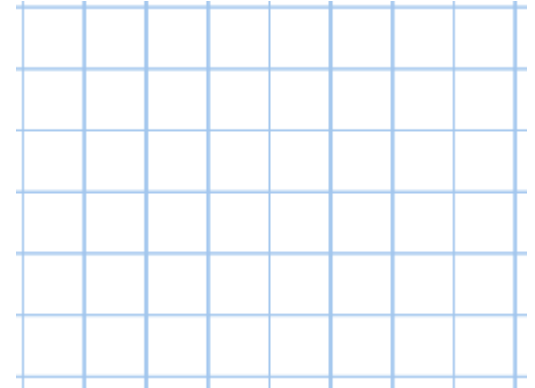
Given that

$$\overrightarrow{AB} = \begin{pmatrix} 3 \\ 5 \end{pmatrix}$$

$$\overrightarrow{BC} = \begin{pmatrix} 2 \\ -1 \end{pmatrix}$$

a) What is \overrightarrow{CA} ?

b) What is \overrightarrow{AC} ?



5

ABC is an isosceles triangle.

$$A = (3, 5)$$

$$B = (2, 2)$$

a) What is the coordinate of C?

b) What is the vector for \overrightarrow{BC} ?

c) What is the vector for \overrightarrow{CA} ?