



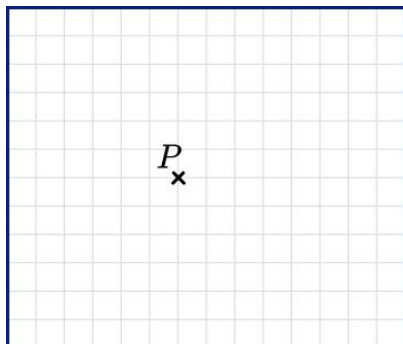
THIRD SPACE
LEARNING

GCSE Exam Questions

Column Vectors | Geometry &
Measure

GCSE Exam Questions: Column Vectors

- 1) From the point P , draw the vectors below.



(a) $a = \begin{pmatrix} 3 \\ 5 \end{pmatrix}$ (1)

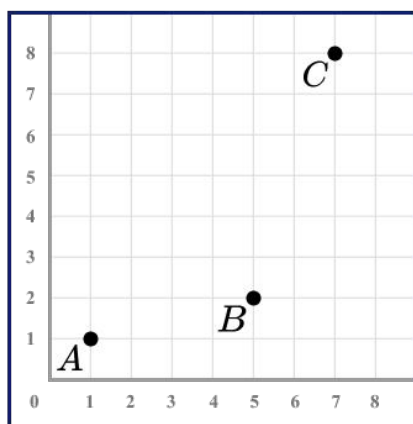
(b) $b = \begin{pmatrix} 5 \\ -2 \end{pmatrix}$ (1)
(2 marks)

- 2) On the axes below, draw the vectors from the point stated.

$\begin{pmatrix} 2 \\ 3 \end{pmatrix}$ from A

$\begin{pmatrix} 3 \\ -2 \end{pmatrix}$ from B

$\begin{pmatrix} -1 \\ -4 \end{pmatrix}$ from C



(3 marks)

GCSE Exam Questions: Column Vectors

- 3) Given the vectors

$$\mathbf{a} = \begin{pmatrix} -4 \\ 3 \end{pmatrix} \quad \mathbf{b} = \begin{pmatrix} 3 \\ -2 \end{pmatrix} \quad \mathbf{c} = \begin{pmatrix} -1 \\ -2 \end{pmatrix}$$

write the following as column vectors:

- (a) $-\mathbf{a}$

(1)

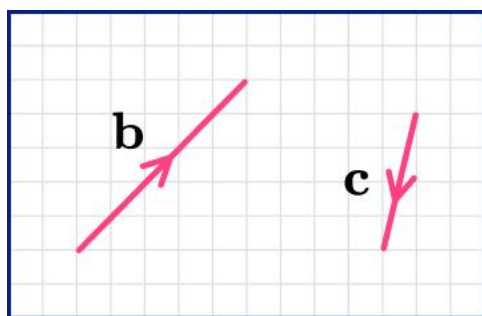
- (b) $-\mathbf{b}$

(1)

- (c) $-\mathbf{c}$

(1)
(3 marks)

- 4) Shown below are vectors $\mathbf{b}$ and $\mathbf{c}$.



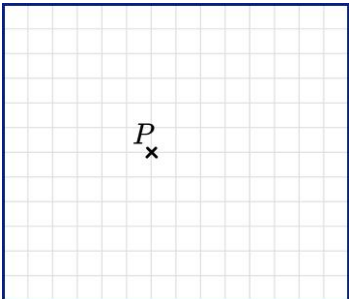
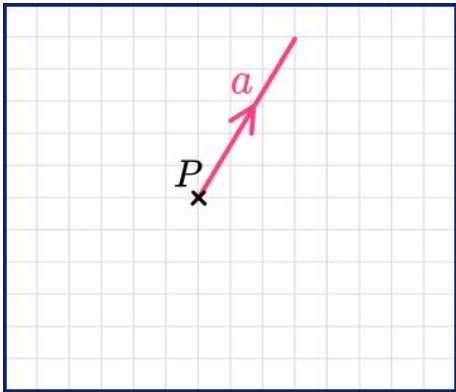
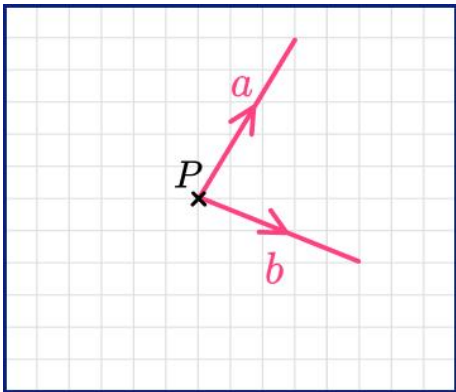
- (a) Write the column vector that represents $\mathbf{b}$.

(1)

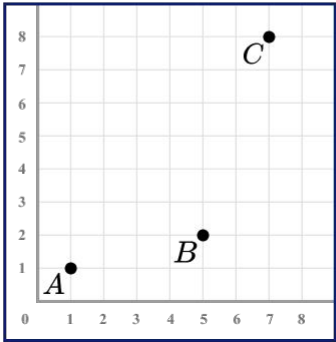
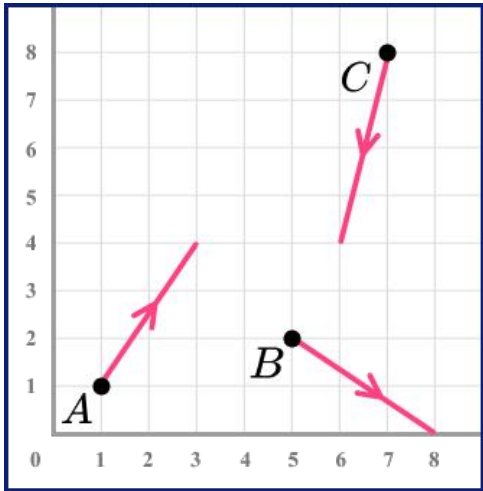
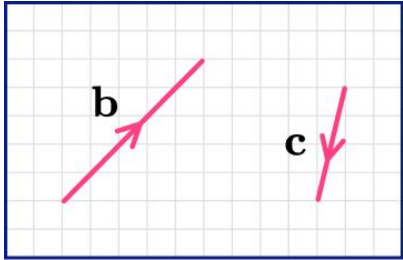
- (b) Write the column vector that represents $\mathbf{c}$.

(1)
(2 marks)

GCSE Exam Questions: Column Vectors Answers

	Question	Answer	Marks
1)	From the point P, draw the vectors below. 		
(a)	$a = \begin{pmatrix} 3 \\ 5 \end{pmatrix}$	(a) 	(1)
(b)	$b = \begin{pmatrix} 5 \\ -2 \end{pmatrix}$	(b) 	(1)

GCSE Exam Questions: Column Vectors Answers

	Question	Answer	Marks
2)	On the axes below, draw the vectors from the point stated. $\begin{pmatrix} 2 \\ 3 \end{pmatrix}$ from A $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$ from B $\begin{pmatrix} -1 \\ -4 \end{pmatrix}$ from C 	 For correct vector from A including arrow (1) For correct vector from B including arrow (1) For correct vector from C including arrow (1)	
3)	Given the vectors $\mathbf{a} = \begin{pmatrix} -4 \\ 3 \end{pmatrix} \quad \mathbf{b} = \begin{pmatrix} 3 \\ -2 \end{pmatrix} \quad \mathbf{c} = \begin{pmatrix} -1 \\ -2 \end{pmatrix}$ write the following as column vectors:		
(a)	$-\mathbf{a}$	(a) $-\mathbf{a} = \begin{pmatrix} 4 \\ -3 \end{pmatrix}$	(1)
(b)	$-\mathbf{b}$	(b) $-\mathbf{b} = \begin{pmatrix} -3 \\ 2 \end{pmatrix}$	(1)
(c)	$-\mathbf{c}$	(c) $-\mathbf{c} = \begin{pmatrix} 1 \\ 2 \end{pmatrix}$	(1)
4)	Shown below are vectors $\mathbf{b}$ and $\mathbf{c}$. 		
(a)	Write the column vector that represents $\mathbf{b}$.	(a) $\mathbf{b} = \begin{pmatrix} 5 \\ 5 \end{pmatrix}$	(1)
(b)	Write the column vector that represents $\mathbf{c}$.	(b) $\mathbf{c} = \begin{pmatrix} -1 \\ -4 \end{pmatrix}$	(1)

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