

AQA – Further vectors – A2 Further Mathematics P2

1. June/2021/Paper_7367/2/No.3

The line L has equation $\mathbf{r} = \begin{bmatrix} 3 \\ 2 \\ 0 \end{bmatrix} + \lambda \begin{bmatrix} -1 \\ -2 \\ 5 \end{bmatrix}$

Which of the following lines is perpendicular to the line L ?

Tick (✓) **one** box.

[1 mark]

$$\mathbf{r} = \begin{bmatrix} 2 \\ -3 \\ 4 \end{bmatrix} + \mu \begin{bmatrix} 1 \\ 2 \\ -5 \end{bmatrix} \quad \square$$

$$\mathbf{r} = \begin{bmatrix} 1 \\ 0 \\ 1 \end{bmatrix} + \mu \begin{bmatrix} 2 \\ -3 \\ 1 \end{bmatrix} \quad \square$$

$$\mathbf{r} = \begin{bmatrix} 1 \\ 2 \\ 1 \end{bmatrix} + \mu \begin{bmatrix} 1 \\ 1 \\ 2 \end{bmatrix} \quad \square$$

$$\mathbf{r} = \begin{bmatrix} 0 \\ 3 \\ 2 \end{bmatrix} + \mu \begin{bmatrix} 4 \\ 3 \\ 2 \end{bmatrix} \quad \square$$