

Start: $A=(4, -3), B=(5, -1);$
 $C=(-1, -2)$
 equation of line l :
 $r = \begin{pmatrix} 1 \\ 2 \end{pmatrix} + s \begin{pmatrix} 3 \\ 4 \end{pmatrix}$

Find an equation of the line passing through the point A parallel to BC

Find an equation of the line passing through the point B perpendicular to AC	$r = \begin{pmatrix} 5 \\ -1 \end{pmatrix} + t \begin{pmatrix} -5 \\ 1 \end{pmatrix}$	Find an equation of the line passing through the point B parallel to AC	$r = \begin{pmatrix} 4 \\ -3 \end{pmatrix} + t \begin{pmatrix} 1 \\ -6 \end{pmatrix}$	Find an equation of the line passing through the point A perpendicular to BC	$r = \begin{pmatrix} 4 \\ -3 \end{pmatrix} + t \begin{pmatrix} 6 \\ 1 \end{pmatrix}$
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$$r = \begin{pmatrix} 5 \\ -1 \end{pmatrix} + t \begin{pmatrix} 1 \\ 5 \end{pmatrix}$$

Find an equation of the line passing through the point C parallel to AB

$r = \begin{pmatrix} -1 \\ -2 \end{pmatrix} + t \begin{pmatrix} 1 \\ 2 \end{pmatrix}$	Find an equation of the line passing through the point C perpendicular to AB	$r = \begin{pmatrix} -1 \\ -2 \end{pmatrix} + t \begin{pmatrix} -2 \\ 1 \end{pmatrix}$	Find an equation of the line passing through the points A and B	$r = \begin{pmatrix} 4 \\ -3 \end{pmatrix} + t \begin{pmatrix} 1 \\ 2 \end{pmatrix}$	Find an equation of the line passing through the points A and C
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$$r = \begin{pmatrix} 4 \\ -3 \end{pmatrix} + t \begin{pmatrix} -5 \\ 1 \end{pmatrix}$$

Find an equation of the line passing through the points B and C

$ABCD$ is a parallelogram. Find the position vector of D .	$\begin{pmatrix} 10 \\ -2 \end{pmatrix}$	$ACBD$ is a parallelogram. Find the position vector of D .	$\begin{pmatrix} 0 \\ 0 \end{pmatrix}$	$ABDC$ is a parallelogram. Find the position vector of D .	$r = \begin{pmatrix} 5 \\ -1 \end{pmatrix} + t \begin{pmatrix} 6 \\ 1 \end{pmatrix}$
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$$\begin{pmatrix} -2 \\ -4 \end{pmatrix}$$

The point $\begin{pmatrix} 7 \\ 10 \end{pmatrix}$ lies on the line l
when $s =$

Find an equation of the line passing through the point A perpendicular to AC	-3	The point $\begin{pmatrix} -8 \\ -10 \end{pmatrix}$ lies on the line l when $s =$	-1	The point $\begin{pmatrix} -2 \\ -2 \end{pmatrix}$ lies on the line l when $s =$	2
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$$r = \begin{pmatrix} 4 \\ -3 \end{pmatrix} + t \begin{pmatrix} 1 \\ 5 \end{pmatrix}$$

Find an equation of the line passing through the point C perpendicular to AC

$r = \begin{pmatrix} -1 \\ -2 \end{pmatrix} + t \begin{pmatrix} 1 \\ 5 \end{pmatrix}$	Find an equation of the line passing through the point B perpendicular to BC	$r = \begin{pmatrix} 5 \\ -1 \end{pmatrix} + t \begin{pmatrix} 1 \\ -6 \end{pmatrix}$	Find an equation of the line passing through the point B parallel to the line $r = \begin{pmatrix} 2 \\ 3 \end{pmatrix} + m \begin{pmatrix} 4 \\ 5 \end{pmatrix}$	$r = \begin{pmatrix} 5 \\ -1 \end{pmatrix} + m \begin{pmatrix} 4 \\ 5 \end{pmatrix}$	Find an equation of the line passing through the point C parallel to the line $r = \begin{pmatrix} 1 \\ 4 \end{pmatrix} + m \begin{pmatrix} 2 \\ 3 \end{pmatrix}$
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$$r = \begin{pmatrix} -1 \\ -2 \end{pmatrix} + m \begin{pmatrix} 2 \\ 3 \end{pmatrix}$$

Find an equation of the line passing through the point A parallel to the line $r = \begin{pmatrix} 2 \\ 3 \end{pmatrix} + m \begin{pmatrix} 4 \\ 5 \end{pmatrix}$

<i>Finish</i>	$r = \begin{pmatrix} 4 \\ -3 \end{pmatrix} + m \begin{pmatrix} 2 \\ 3 \end{pmatrix}$	Find an equation of the line passing through the point A perpendicular to the line $r = \begin{pmatrix} 2 \\ 3 \end{pmatrix} + m \begin{pmatrix} 3 \\ -2 \end{pmatrix}$	$r = \begin{pmatrix} 5 \\ -1 \end{pmatrix} + m \begin{pmatrix} -5 \\ 4 \end{pmatrix}$	Find an equation of the line passing through the point B perpendicular to the line $r = \begin{pmatrix} 2 \\ 3 \end{pmatrix} + m \begin{pmatrix} 4 \\ 5 \end{pmatrix}$	$r = \begin{pmatrix} 4 \\ -3 \end{pmatrix} + m \begin{pmatrix} 4 \\ 5 \end{pmatrix}$
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