2	**(a)**		$\frac{p-1}{1-2} = \frac{-3-1}{4-2}$ or $\frac{p+3}{1-4} = -2$ oe $p = 3$	**M1** **A1** **[2]**	**1.1** **2.2a**	Correct equation involving ratios seen. or $y = -\frac{1}{2}x + \frac{5}{2}$ correct, and substitute $y = 1$ or **clear** correct diagram drawn, from $x = -3$ to $x = 3$ Allow M1A1 with unclear working or no working
2	**(b)**		$\overrightarrow{AB} = \begin{pmatrix} 4 \\ -2 \end{pmatrix}$, $\overrightarrow{BD} = \begin{pmatrix} q-1 \\ -1 \end{pmatrix}$, $\overrightarrow{DA} = \begin{pmatrix} -3-q \\ 3 \end{pmatrix}$ $(-3-q)^2 + 3^2 = (q-1)^2 + 1 + 16 + 4$ oe $q = 0.5$	**M1** **M1** **A1** **[3]**	**3.1a** **1.1** **2.2a**	Attempt to find vectors along 2 or 3 sides. Allow errors Their $DA^2 = AB^2 + BD^2$ or $\begin{pmatrix} 4 \\ -2 \end{pmatrix} \cdot \begin{pmatrix} q-1 \\ -1 \end{pmatrix} = 0$ ft their $\overrightarrow{AB}$ & $\overrightarrow{BD}$ Must follow from correct working seen
			Alternative method Gradient of $AB = -\frac{1}{2}$, gradient of $BD = 2$ BD is $y-2 = 2(x-1)$ or $y = 2x+c$ & $c = 0$ M1 BD is $y = 2x$ A1 When $y = 1$, $x = 0.5$ $q = 0.5$ A1			Attempt find gradient and equation of BD. Allow errors