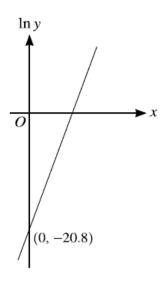
## <u>Logarithm and Exponential Functions – 2022 A2 June</u>

1. March/2022/Paper\_9709/22/No.3

	straight line with gradient 0.239.	посл
(a)	Find the value of $a$ correct to 3 significant figures.	[3]
	-20	
	~~?	
<b>(b)</b>	Hence find the value of $x$ when $y = 36$ . Give your answer correct to 3 significant figures.	[2]
		•••••

**2.** June/2022/Paper\_9709/21/No.1



The variables x and y satisfy the equation  $y = 4^{2x-a}$ , where a is an integer. As shown in the diagram, the graph of  $\ln y$  against x is a straight line passing through the point (0, -20.8), where the second coordinate is given correct to 3 significant figures.

(a)	Show that the gradient of the straight line is ln 16.	2]
	<b>10.0</b>	•
<b>(b)</b>	Determine the value of a. [2	2]