



AB! AD (1) ו A נ"ן

$$\begin{cases} 14 + 4t = s \\ -9 - 2t = s - 4s \\ -5 - 3t = 14 - 5s \end{cases} \begin{cases} -9 - 2t = s - 5s - 16t \\ 14t = -42 \\ t = -3 \\ s = 2 \end{cases}$$

$C = B + \vec{AD} = (3, -7, -1) + (-2, -2, 3) = (1, -9, 2)$   $A(2, -3, 4)$   $P(1)$

(d)  $M = (2, -3, 0)$   $\vec{MC} = (5, -6, -4)$

	$x-2$	$y+3$	$z-4$	
$\vec{AD}$	4	-2	-3	$= -2(x-2) + 17(y+3) - 14(z-4) = 0$
$\vec{AB}$	1	-4	-5	$= -2x + 17y - 14z + 111 = 0$

$\sin \alpha = \frac{|(5, -6, -4) \cdot (-2, 17, -14)|}{\sqrt{77} \sqrt{489}} = \frac{56}{\sqrt{77} \sqrt{489}}$

(e)  $S_{ABCD} = |\vec{AD} \times \vec{AB}| = \sqrt{(-2)^2 + 17^2 + (-14)^2} = \sqrt{489}$

$V = \frac{1}{3} \cdot \frac{112}{\sqrt{489}} \cdot \sqrt{489} = \frac{112}{3}$

$h = \frac{|-2 + 17 - 14 + 111|}{\sqrt{489}} = \frac{112}{\sqrt{489}}$

L.A