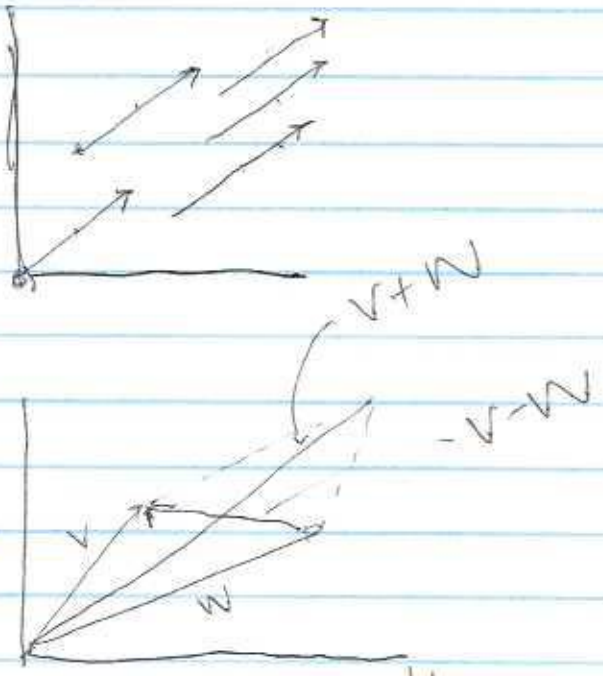
EEC 2S

① 1/28



even | odd

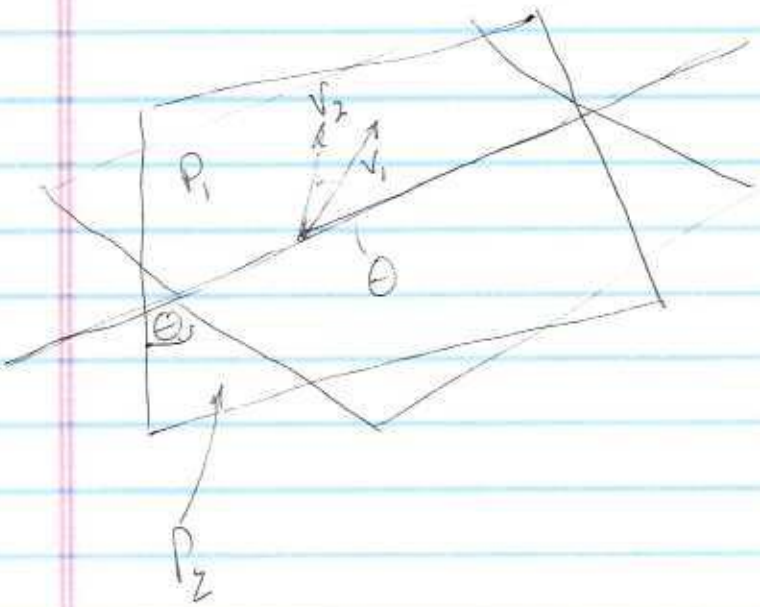
$|A \times B \cdot C|$ | $|A \times C \cdot B|$

$|B \times C \cdot A|$ | $|C \times B \cdot A|$

$|C \times A \cdot B|$ | $|B \times A \cdot C|$

all equal | all equal

(2)



$r_0 = \langle 0, 0, 0 \rangle$

$v = \langle 1, -2, 4 \rangle$

$r(t) = r_0 + tv$

$t = -2$

$r - r_0 \cdot v = 0$

$Ax + By + Cz = D$

$\frac{\langle A, B, C \rangle}{|\langle A, B, C \rangle|}$: unit direction vectors

$2x - 3z = 1 + y$

$2x - y - 3z = 1$

$\langle 2, -1, -3 \rangle$

What is angle between these planes:

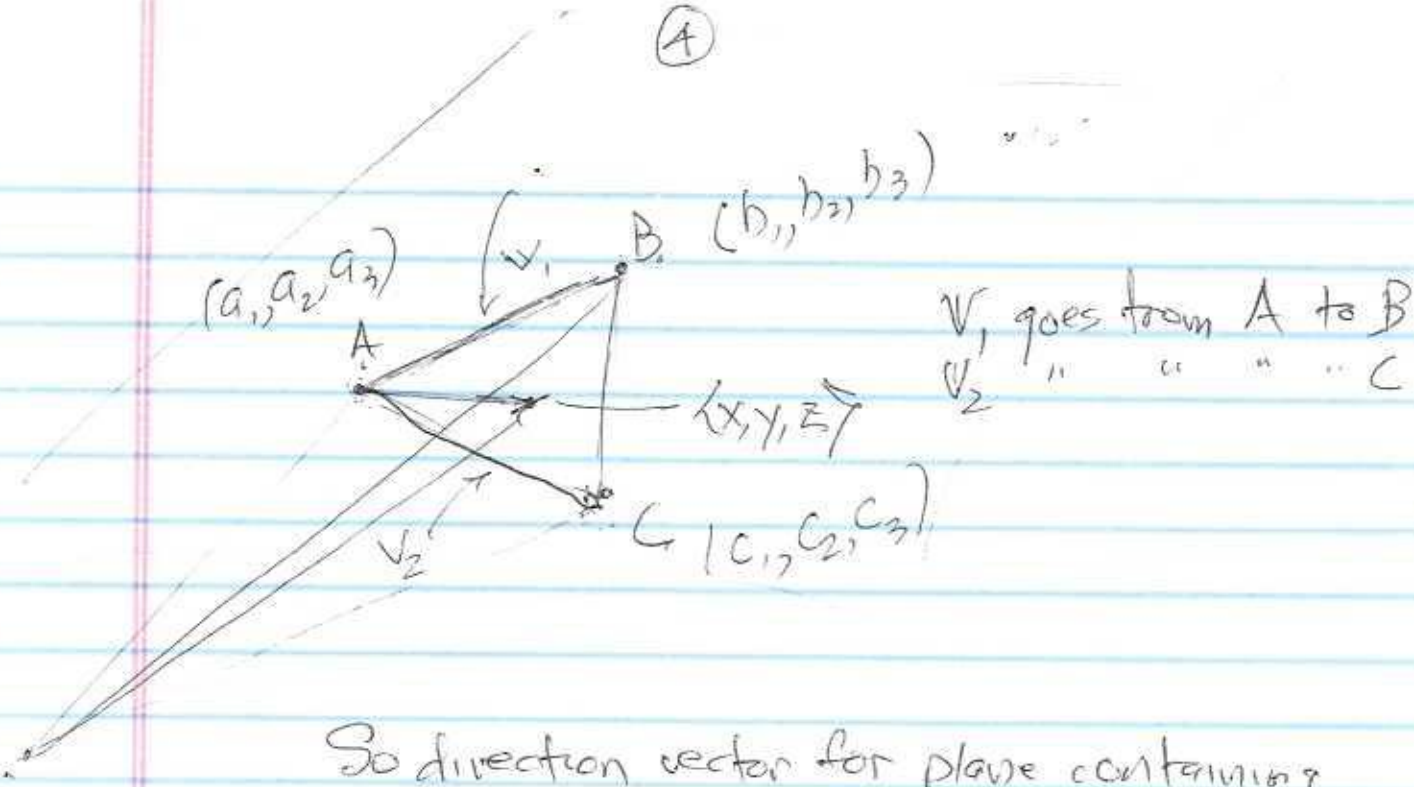
① $2x - y - 3z = 1$ $\quad \langle 2, -1, -3 \rangle \quad \sqrt{14}$

② $4x + 7y + 2z = 5$ $\quad \langle 4, 7, 2 \rangle \quad \sqrt{69}$

$8 - 7 - 6$

$\theta = \arccos \frac{|-5|}{\sqrt{14 \cdot 69}}$

④

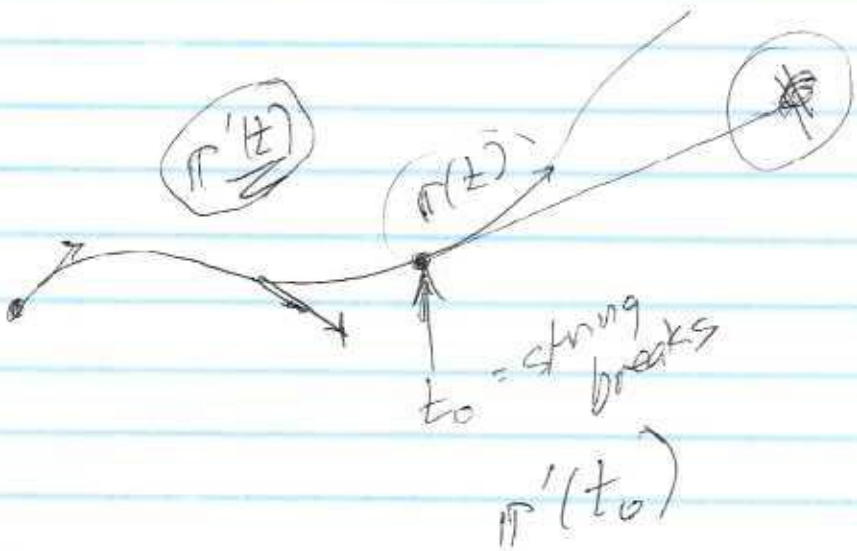


V_1 goes from A to B

V_2 " " " " C

So direction vector for plane containing

A, B, & C is $V_1 \times V_2 = V$ (dir vector)

~~$\langle a_1, a_2, a_3, \ldots \rangle$~~

$\langle x, y, z \rangle - \langle a_1, a_2, a_3 \rangle \cdot V = 0$