

Ramylos Frangos 1902755

06/01/2021

12:37

ACHA4000

pg 6

$$\begin{aligned} d) \quad 2x + 3y + 2z &= 14 \\ x + 2y + 5z &= 4 \\ 3x + y - 2z &= 19 \end{aligned}$$

$$\Rightarrow \begin{pmatrix} 2 & 3 & 2 \\ 1 & 2 & 5 \\ 3 & 1 & -2 \end{pmatrix} \begin{pmatrix} x \\ y \\ z \end{pmatrix} = \begin{pmatrix} 14 \\ 4 \\ 19 \end{pmatrix}$$

$$|A| = 2(-4 - 5) - 3(-2 - 15) + 2(1 - 6)$$

$$|A| = -18 + 34 - 10$$

$$\boxed{|A| = 6}$$

$$\begin{pmatrix} 14 & 3 & 2 \\ 4 & 2 & 5 \\ 19 & 1 & -2 \end{pmatrix}$$

$$|A_1| = 14(-4 - 5) - 3(-8 - 95) + 2(4 - 38)$$

$$|A_1| = -126 + 309 - 68$$

$$\boxed{|A_1| = 115}$$