

+ Oseana Souto  
Bio Medical Engineering

$$A = 2i - j$$

$$B = 3i + 5j - 11k$$

$$C = 7i + 4j - 5k$$

$$= 2A + 3B - 5C$$

$$\rightarrow (2i - j) + 9(3i + 5j - 11k) - 5(7i + 4j - 5k)$$

$$= 6i + 3j + 27i + 45j - 99k - 35i - 20j + 25k$$

$$= 24i + 45j - 74k$$

ii  $R = 24i + 45j - 74k$

$$k = 2(2i - j) + (3i + 5j - 11k) - (7i + 4j - 5k)$$

$$k = 4i - 2j + 6i + 10j - 22k - 7i - 4j + 5k$$

$$k = -3i + 8j - 17k$$

$$k = 12i - 2j - 39k$$

$$\hat{k} = \frac{k}{|k|}$$

$$|k| = \sqrt{12^2 + (-2)^2 + (-39)^2}$$

$$= \sqrt{144 + 4 + 1521}$$

$$= \sqrt{1669} = 40.85 = 41$$

$$= \frac{12i - 25 - 57i}{40.85}$$

∴ Direction of course of  $H$  are  $\frac{12}{40.85}$

$$OR = \frac{12}{41} i - \frac{39}{41} i$$