8/10/24

Ασκ. 20

$$F_{\text{ολ}}^2 = F_1^2 + F_2^2 + 2F_1 \cdot F_2 \cdot \sigma\upsilon\nu\theta \Rightarrow$$

$$\sqrt{13}^2 = 3^2 + 4^2 + 2 \cdot 3 \cdot 4 \cdot \sigma\upsilon\nu\theta =$$

$$13 = 9 + 16 + 24\sigma\upsilon\nu\theta =$$

$$13 - 25 = 24\sigma\upsilon\nu\theta =$$

$$-12 = 24\sigma\upsilon\nu\theta \Rightarrow \sigma\upsilon\nu\theta = -\frac{12}{24} =$$

$$\sigma\upsilon\nu\theta = -\frac{1}{2}$$

$$\sigma\upsilon\nu 60^\circ = \frac{1}{2} \qquad \sigma\upsilon\nu 120^\circ = -\sigma\upsilon\nu 60^\circ = -\frac{1}{2}$$

Άρα: $\theta = 120^\circ$