

α) 1) $\vec{\alpha}^2 = |\vec{\alpha}|^2 = 2^2 = 4$

2) $\vec{\beta}^2 = |\vec{\beta}|^2 = 3^2 = 9$

3) $\vec{\alpha} \cdot \vec{\beta} = |\vec{\alpha}| \cdot |\vec{\beta}| \cdot \cos(\hat{\vec{\alpha}, \vec{\beta}}) = 2 \cdot 3 \cdot \cos 60^\circ = 3$

4) $(\vec{\alpha} \cdot \vec{\beta})^2 = 3^2 = 9$ και $\vec{\alpha}^2 \cdot \vec{\beta}^2 = 6 |\vec{\alpha}|^2 \cdot |\vec{\beta}|^2 = 4 \cdot 9 = 36$

5) $|\vec{\alpha} \cdot \vec{\beta}| = |3| = 3$ και $|\vec{\alpha}| \cdot |\vec{\beta}| = 2 \cdot 3 = 6$

β) 1) Λ **2)** Λ