

20.22

$$P(x) = (2\lambda - \kappa)x^2 + (\kappa^2 + \lambda^2)x + 10$$

$$\text{πρέπει : } P(2) = 0 \Rightarrow 4(2\lambda - \kappa) + 2\kappa^2 + 2\lambda^2 + 10 = 0 \Rightarrow 8\lambda - 4\kappa + 2\kappa^2 + 2\lambda^2 + 10 = 0 \Rightarrow$$

$$\Rightarrow (2\kappa^2 - 4\kappa + 2) + (2\lambda^2 + 8\lambda + 8) = 0 \Rightarrow 2(\kappa^2 - 2\kappa + 1) + 2(\lambda^2 + 4\lambda + 4) = 0 \Rightarrow$$

$$\Rightarrow 2(\kappa - 1)^2 + 2(\lambda + 2)^2 = 0 \Rightarrow \begin{cases} \kappa - 1 = 0 \\ \lambda + 2 = 0 \end{cases} \Rightarrow \begin{cases} \kappa = 1 \\ \lambda = -2 \end{cases}$$