

1.38 1)

Πρέπει

$$f(2) = g(2) \Rightarrow 2\alpha \cdot 2 - 3 = 2 + 2\alpha + 1 \Rightarrow 4\alpha - 3 = 3 + 2\alpha \Rightarrow 2\alpha = 6 \Rightarrow \alpha = 3$$

1.38 2)

Πρέπει

$$f(-1) = g(-1) \Rightarrow (-1)^2 - (\alpha + 1)(-1) + \alpha = (-1)^2 + 3\alpha(-1) + 6 \Rightarrow \\ \Rightarrow 1 + \alpha + 1 + \alpha = 1 - 3\alpha + 6 \Rightarrow 5\alpha = 5 \Rightarrow \boxed{\alpha = 1}$$

1.38 3)

Πρέπει

$$f(0) = g(0) \Rightarrow 3 \cdot 0^2 - 3 \cdot 0 + \alpha - 2 = 7 \cdot 0 + 3\alpha + 6 \Rightarrow -2\alpha = 8 \Rightarrow \boxed{\alpha = -4}$$

1.38 4)

Πρέπει

$$\begin{cases} f(-2) = g(-2) \\ \text{και} \\ f(1) = g(1) \end{cases} \Rightarrow \begin{cases} 3(-2)^2 - (\alpha + 2)(-2) + \beta + 3 = \alpha \cdot (-2)^2 - 5\beta \cdot (-2) + 6 \\ \text{και} \\ 3 \cdot 1^2 - (\alpha + 2) \cdot 1 + \beta + 3 = \alpha \cdot 1^2 - 5\beta \cdot 1 + 6 \end{cases} \Rightarrow$$

$$\Rightarrow \begin{cases} 12 + 2\alpha + 4 + \beta + 3 = 4\alpha + 10\beta + 6 \\ \text{και} \\ 3 - \alpha - 2 + \beta + 3 = \alpha - 5\beta + 6 \end{cases} \Rightarrow \begin{cases} -2\alpha - 9\beta = -13 \\ \text{και} \\ -2\alpha + 6\beta = 2 \end{cases} \xrightarrow{\text{λύνουμε το σύστημα}} \Rightarrow \begin{cases} \alpha = 2 \\ \beta = 1 \end{cases}$$