

1.29 1)

Πρέπει

$$f(-2) = -7 \Rightarrow (-2)^2 + 2\alpha(-2) + 1 = -7 \Rightarrow 4 - 4\alpha + 1 = -7 \Rightarrow -4\alpha = -12 \Rightarrow \alpha = 3$$

1.29 2)

Πρέπει

$$f(-1) = -1 \Rightarrow 5(-1)^3 - \alpha(-1) + \alpha = -1 \Rightarrow -5 + \alpha + \alpha = -1 \Rightarrow 2\alpha = 4 \Rightarrow \alpha = 2$$

1.29 3)

Πρέπει

$$f(\alpha + 4) = \alpha + 1 \Rightarrow 3(\alpha + 4) - 7 = \alpha + 1 \Rightarrow 3\alpha + 12 - 7 = \alpha + 1 \Rightarrow 2\alpha = -4 \Rightarrow \alpha = -2$$

1.29 4)

Πρέπει

$$f(\alpha + 1) = \alpha - 2 \Rightarrow \frac{2(\alpha + 1) - 1}{(\alpha + 1) + 3} = \alpha - 2 \Rightarrow \frac{2\alpha + 2 - 1}{\alpha + 4} = \alpha - 2 \Rightarrow (\alpha + 4)(\alpha - 2) = 2\alpha + 1 \Rightarrow$$

$$\Rightarrow \alpha^2 - 2\alpha + 4\alpha - 8 = 2\alpha + 1 \Rightarrow \alpha^2 = 9 \Rightarrow \alpha = \pm 3$$