

1.9 1)

$$\alpha) \quad f(x+2) = 2x^2 + x - 4 \quad \xRightarrow{\text{θέτουμε } x=1} \quad f(1+2) = 2 \cdot 1^2 + 1 - 4 \Rightarrow \boxed{f(3) = -1}$$

$$\beta) \quad f(x+2) = 2x^2 + x - 4 \quad \xRightarrow{\text{θέτουμε } x=-2} \quad f(-2+2) = 2 \cdot (-2)^2 + (-2) - 4 \Rightarrow \boxed{f(0) = 2}$$

$$\gamma) \quad f(x+2) = 2x^2 + x - 4 \quad \xRightarrow{\text{θέτουμε } x=-1} \quad f(-1+2) = 2 \cdot (-1)^2 + (-1) - 4 \Rightarrow \boxed{f(1) = -3}$$

1.9 2)

$$\alpha) \quad f(2x-3) = x^2 - 3x - 2 \quad \xRightarrow{\text{θέτουμε } x=4} \quad f(2 \cdot 4 - 3) = 4^2 - 3 \cdot 4 - 2 \Rightarrow \boxed{f(5) = 2}$$

$$\beta) \quad f(2x-3) = x^2 - 3x - 2 \quad \xRightarrow{\text{θέτουμε } x=1} \quad f(2 \cdot 1 - 3) = 1^2 - 3 \cdot 1 - 2 \Rightarrow \boxed{f(-1) = -4}$$

$$\gamma) \quad f(2x-3) = x^2 - 3x - 2 \quad \xRightarrow{\text{θέτουμε } x=5} \quad f(2 \cdot 5 - 3) = 5^2 - 3 \cdot 5 - 2 \Rightarrow \boxed{f(7) = 8}$$

1.9 3)

$$f(x-1) + f(3-x) = x^2 + 3x - 4 \quad \xRightarrow{\text{θέτουμε } x=2} \quad f(2-1) + f(3-2) = 2^2 + 3 \cdot 2 - 4 \Rightarrow$$

$$\Rightarrow f(1) + f(1) = 4 + 6 - 4 \Rightarrow 2f(1) = 6 \Rightarrow \boxed{f(1) = 3}$$

1.9 4)

$$f(2x-1) + f(x+1) = x^2 + x + 2 \quad \xRightarrow{\text{θέτουμε } x=2} \quad f(2 \cdot 2 - 1) + f(2+1) = 2^2 + 2 + 2 \Rightarrow$$

$$\Rightarrow f(3) + f(3) = 8 \Rightarrow 2f(3) = 8 \Rightarrow \boxed{f(3) = 4}$$