

Γ ΛΥΚΕΙΟΥ ΜΕΡΟΣ Α

17.2 1)

$$\alpha) \quad y(x) = -2x^2 + x - 1 \Rightarrow \boxed{y'(x) = -4x + 1}$$

$$\beta) \quad y'(x) = -4x + 1 \xRightarrow{x=1} \boxed{y'(1) = -3}$$

17.2 2)

$$\alpha) \quad y(x) = x^2 + x - 1 \Rightarrow \boxed{y'(x) = 2x + 1}$$

$$\beta) \quad y'(x) = 2x + 1 \xRightarrow{x=3} \boxed{y'(3) = 7}$$

17.2 3)

$$\alpha) \quad y(x) = 3x^2 - 2x - 5 \Rightarrow \boxed{y'(x) = 6x - 2}$$

$$\beta) \quad y'(x) = 6x - 2 \xRightarrow{x=5} \boxed{y'(5) = 28}$$

17.2 4)

$$\alpha) \quad y(x) = -x^2 - 4x + 9 \Rightarrow \boxed{y'(x) = -2x - 4}$$

$$\beta) \quad y'(x) = -2x - 4 \xRightarrow{x=-3} \boxed{y'(-3) = 2}$$

17.2 5)

$$y(x) = 3x^2 - 2x + 1 \Rightarrow \boxed{y'(x) = 6x - 2} \xRightarrow{x=-2} \boxed{y'(-2) = -14}$$

17.2 6)

$$y(x) = x^3 + x - 1 \Rightarrow \boxed{y'(x) = 3x^2 + 1} \xRightarrow{x=-1} \boxed{y'(-1) = 4}$$

17.2 7)

$$f(x) = 2x - \frac{1}{x} \Rightarrow \boxed{f'(x) = 2 + \frac{1}{x^2}} \xRightarrow{x=1} \boxed{f'(1) = 3}$$

17.2 8)

$$f(x) = 8\sqrt{x} \Rightarrow f'(x) = \frac{8^4}{2\sqrt{x}} \Rightarrow \boxed{f'(x) = \frac{4}{\sqrt{x}}} \xRightarrow{x=4} \boxed{f'(4) = 2}$$