

# Γ ΛΥΚΕΙΟΥ ΜΕΡΟΣ Α

15.18 1)

$$\alpha) \left( e^{2\sqrt{x}+3} \right)' = e^{2\sqrt{x}+3} (2\sqrt{x} + 3)' = e^{2\sqrt{x}+3} \frac{2^1}{2\sqrt{x}} = \frac{e^{2\sqrt{x}+3}}{\sqrt{x}}$$

$$\beta) \left( e^{-x} \right)' = e^{-x} (-x)' = -e^{-x}$$

15.18 2)

$$e^{2x^5-7x} \cdot (2x^5 - 7x)' = e^{2x^5-7x} (10x^4 - 7)$$

15.18 3)

$$e^{x^6+2x} \cdot (x^6 + 2x)' = e^{x^6+2x} (6x^5 + 2)$$

15.18 4)

$$e^{\eta\mu x} \cdot (\eta\mu x)' = e^{\eta\mu x} \sigma\upsilon\nu x$$

15.18 5)

$$e^{\sigma\upsilon\nu x} \cdot (\sigma\upsilon\nu x)' = -e^{\sigma\upsilon\nu x} \eta\mu x$$

15.18 6)

$$e^{\varepsilon\varphi x} \cdot (\varepsilon\varphi x)' = \frac{e^{\varepsilon\varphi x}}{\sigma\upsilon\nu^2 x}$$

15.18 7)

$$e^{\sigma\varphi x} \cdot (\sigma\varphi x)' = -\frac{e^{\sigma\varphi x}}{\eta\mu^2 x}$$

15.18 8)

$$e^{\frac{1}{x}} \cdot \left( \frac{1}{x} \right)' = -\frac{e^{\frac{1}{x}}}{x^2}$$

15.18 9)

$$e^{e^x} \cdot (e^x)' = e^{e^x} \cdot e^x$$

15.18 10)

$$e^{2^x} \cdot (2^x)' = e^{2^x} 2^x \ln 2$$

15.18 11)

$$e^{x+\ln x} \cdot (x+\ln x)' = e^{x+\ln x} \left( 1 + \frac{1}{x} \right)$$

15.18 12)

$$e^{\sqrt{x}} \cdot (\sqrt{x})' = \frac{e^{\sqrt{x}}}{2\sqrt{x}}$$