

12, 11

جلسه دوم

ماده 8

$$f(x) = \omega \cos x - \lambda x$$

$$f'(x) = \omega(-\sin x) - \lambda = -\omega \sin x - \lambda$$

$$f(x) = \omega x^{\gamma} - 9x + \mu$$

$$f'(x) = \log x - 9 + 0 = \log x - 9 \quad \omega(x)$$

$$f(x) = x^{\gamma} e^{\omega x} - \ln(x+1)$$

$$f'(x) = \gamma x^{\gamma-1} e^{\omega x} + \omega x^{\gamma} e^{\omega x} - \frac{1}{x+1}$$

$$f(x) = \gamma x^{\gamma-1} e^{\omega x} + \ln(\lambda x^{\gamma} - \gamma x)$$

$$f'(x) = \gamma(\gamma x^{\gamma-2}) e^{\omega x} + \frac{\lambda \gamma x^{\gamma-1} - \gamma}{\lambda x^{\gamma} - \gamma x}$$

$$f(x) = \cancel{a^x} \sin x + \cancel{1} \cos x - \cancel{a^x} e^{\cancel{x}}$$

$$f'(x) = \cancel{a^x} \sin x + \cos x (\cancel{a^x}) + 1(-\sin x) - \omega(\cancel{x}) e^{\cancel{x}}$$

$$f(x) = (1a^x - \cancel{x})^a \quad a a^x - \cancel{x}$$

$$f'(x) = \omega(1a^x - \cancel{x}) (1a^x - \cancel{x})^{\cancel{x}}$$

$$\begin{matrix} n & u' & u^{n-1} \\ & & \cancel{a^x - x} \end{matrix}$$

$$- \cancel{x} (x a^x - \cancel{x}) e$$

$$\int f(x) dx = F(x) \quad F'(x) = f(x)$$

جواب

① $\int 1 dx = x$

$$\int dv = v$$

$$\textcircled{Y} \int x^n dx = \frac{x^{n+1}}{n+1}$$

$$\int x^y dx = \frac{x^{y+1}}{y+1}$$

$$\int x^a dx = \frac{x^{a+1}}{a+1}$$