

7.3 | 연습문제 정답

2023. 2. 10 업데이트

01. $-\frac{10}{e} + 10e$

02. $\frac{1}{4} \{ \sqrt{2} + \ln(\sqrt{2} + 1) \}$

03. $\ln(1 + \sqrt{2})$

04. $\frac{59}{24}$

05. $\ln\left(\frac{2 + \sqrt{3}}{\sqrt{2} + 1}\right)$

06. $\frac{2}{243}(82\sqrt{82} - 1)$

07. $\frac{779}{240}$

08. 생략

09. $\frac{\pi}{9} \left(17^{\frac{3}{2}} - 1 \right)$

10. 8π

11. $\pi \{ 5\sqrt{26} + \ln(5 + \sqrt{26}) - 2\sqrt{5} - \ln(2 + \sqrt{5}) \}$

12. (a) $\frac{4\sqrt{2}\pi}{3}(5\sqrt{5}-2\sqrt{2})$ (b) $\frac{\pi}{27}(145\sqrt{145}-10\sqrt{10})$

13. $\frac{\pi}{4}(e^2+4-e^{-2})$

14. $\pi\left[\sqrt{2}+\frac{1}{2}\ln(\sqrt{2}+1)\right]$

15. $\frac{\pi}{4}$