

7

$$\therefore C' = \frac{1}{e^{-\frac{1}{2}}} = e^{\frac{1}{2}}$$

$$\therefore y(t) = e^{\frac{1}{2}} e^{(-\frac{1}{2}e^{-t^2})} = e^{\frac{1}{2}\{1-e^{-t^2}\}}$$

| | |
|-------------------|---------------------|
| $\int x \ln x dx$ | $\frac{L}{D}$ |
| | $\frac{1}{x}$ |
| | $\frac{1}{x^2}$ |
| | $\frac{1}{x^3}$ |
| | $\frac{1}{x^4}$ |
| | $\frac{1}{x^5}$ |
| | $\frac{1}{x^6}$ |
| | $\frac{1}{x^7}$ |
| | $\frac{1}{x^8}$ |
| | $\frac{1}{x^9}$ |
| | $\frac{1}{x^{10}}$ |
| | $\frac{1}{x^{11}}$ |
| | $\frac{1}{x^{12}}$ |
| | $\frac{1}{x^{13}}$ |
| | $\frac{1}{x^{14}}$ |
| | $\frac{1}{x^{15}}$ |
| | $\frac{1}{x^{16}}$ |
| | $\frac{1}{x^{17}}$ |
| | $\frac{1}{x^{18}}$ |
| | $\frac{1}{x^{19}}$ |
| | $\frac{1}{x^{20}}$ |
| | $\frac{1}{x^{21}}$ |
| | $\frac{1}{x^{22}}$ |
| | $\frac{1}{x^{23}}$ |
| | $\frac{1}{x^{24}}$ |
| | $\frac{1}{x^{25}}$ |
| | $\frac{1}{x^{26}}$ |
| | $\frac{1}{x^{27}}$ |
| | $\frac{1}{x^{28}}$ |
| | $\frac{1}{x^{29}}$ |
| | $\frac{1}{x^{30}}$ |
| | $\frac{1}{x^{31}}$ |
| | $\frac{1}{x^{32}}$ |
| | $\frac{1}{x^{33}}$ |
| | $\frac{1}{x^{34}}$ |
| | $\frac{1}{x^{35}}$ |
| | $\frac{1}{x^{36}}$ |
| | $\frac{1}{x^{37}}$ |
| | $\frac{1}{x^{38}}$ |
| | $\frac{1}{x^{39}}$ |
| | $\frac{1}{x^{40}}$ |
| | $\frac{1}{x^{41}}$ |
| | $\frac{1}{x^{42}}$ |
| | $\frac{1}{x^{43}}$ |
| | $\frac{1}{x^{44}}$ |
| | $\frac{1}{x^{45}}$ |
| | $\frac{1}{x^{46}}$ |
| | $\frac{1}{x^{47}}$ |
| | $\frac{1}{x^{48}}$ |
| | $\frac{1}{x^{49}}$ |
| | $\frac{1}{x^{50}}$ |
| | $\frac{1}{x^{51}}$ |
| | $\frac{1}{x^{52}}$ |
| | $\frac{1}{x^{53}}$ |
| | $\frac{1}{x^{54}}$ |
| | $\frac{1}{x^{55}}$ |
| | $\frac{1}{x^{56}}$ |
| | $\frac{1}{x^{57}}$ |
| | $\frac{1}{x^{58}}$ |
| | $\frac{1}{x^{59}}$ |
| | $\frac{1}{x^{60}}$ |
| | $\frac{1}{x^{61}}$ |
| | $\frac{1}{x^{62}}$ |
| | $\frac{1}{x^{63}}$ |
| | $\frac{1}{x^{64}}$ |
| | $\frac{1}{x^{65}}$ |
| | $\frac{1}{x^{66}}$ |
| | $\frac{1}{x^{67}}$ |
| | $\frac{1}{x^{68}}$ |
| | $\frac{1}{x^{69}}$ |
| | $\frac{1}{x^{70}}$ |
| | $\frac{1}{x^{71}}$ |
| | $\frac{1}{x^{72}}$ |
| | $\frac{1}{x^{73}}$ |
| | $\frac{1}{x^{74}}$ |
| | $\frac{1}{x^{75}}$ |
| | $\frac{1}{x^{76}}$ |
| | $\frac{1}{x^{77}}$ |
| | $\frac{1}{x^{78}}$ |
| | $\frac{1}{x^{79}}$ |
| | $\frac{1}{x^{80}}$ |
| | $\frac{1}{x^{81}}$ |
| | $\frac{1}{x^{82}}$ |
| | $\frac{1}{x^{83}}$ |
| | $\frac{1}{x^{84}}$ |
| | $\frac{1}{x^{85}}$ |
| | $\frac{1}{x^{86}}$ |
| | $\frac{1}{x^{87}}$ |
| | $\frac{1}{x^{88}}$ |
| | $\frac{1}{x^{89}}$ |
| | $\frac{1}{x^{90}}$ |
| | $\frac{1}{x^{91}}$ |
| | $\frac{1}{x^{92}}$ |
| | $\frac{1}{x^{93}}$ |
| | $\frac{1}{x^{94}}$ |
| | $\frac{1}{x^{95}}$ |
| | $\frac{1}{x^{96}}$ |
| | $\frac{1}{x^{97}}$ |
| | $\frac{1}{x^{98}}$ |
| | $\frac{1}{x^{99}}$ |
| | $\frac{1}{x^{100}}$ |

Other integrals to attempt

127. Further Questions

Ques. $\int \frac{8x}{x^2} dx$, $\int \frac{\ln(3u)}{u} du$, $\int \frac{x^4}{x^5+1} dx$, $\int \frac{dx}{e^x+1}$

$\int (\ln x)^2 dx$, $\int_0^{\pi} t^2 \cos^2 t dt$, $\int_{\frac{\sqrt{\pi}}{2}}^{\sqrt{\pi}} \theta^3 \cos(\theta^2) d\theta$

Does $\int_{-\infty}^{\infty} \frac{x^3 dx}{1+x^8}$ exist? If so what is its value?

$\int \frac{x^4}{x^5-7} \ln(x^5-7) dx$, $\int \frac{\ln x}{x^5} dx$, $\int \frac{e^{\sqrt{x}}}{\sqrt{x}} dx$, $\int \sqrt{x} \ln \sqrt{x} dx$

(8)

$$\int \frac{1}{x \ln(x^2)} dx, \int \frac{\ln(\ln(x))}{x} dx$$

$$\int e^{2\theta} \sin 3\theta d\theta, \int \sin^{\frac{1}{3}} x \cos^3 x dx,$$

$$\int \tan^3 x dx, \int \cos^4 x dx, \int \tan^3 x \sec^5 x dx,$$

$$\int \tan x \sec^4 x dx, \int \sec^3 x dx, \int (36 - 9x^2)^{\frac{3}{2}} dx,$$

$$\int \frac{1}{x^2 + 6x + 18} dx, \boxed{\int \frac{x^2 + 2x + 4}{\sqrt{x^2 - 4x}} dx},$$

$$\frac{d}{dx} \left(\int_0^{\cos x} \frac{t^4 + 6}{t^2 + 4} dt \right), \boxed{\int \sin \sqrt{x} dx}^*$$

$$\int \frac{x+2}{x^2+2x+2} dx, \int_0^5 (1+x) \ln(1+x) dx$$