

Evaluate the integrals

1. 
$$\int_{-1}^{\ln 2} \frac{3t}{e^t} dt$$

2. 
$$\int \frac{x}{2\sqrt{x+2}} dx$$

3. 
$$\int x \tan^{-1} x \, dx$$

4. 
$$\int x \sinh x \, dx$$

5. 
$$\int_{\pi}^{2\pi} \cot \frac{x}{3} \, dx$$

6. 
$$\int x^2 \cos x \, dx$$

7. 
$$\int e^x \sin x \, dx$$

8. 
$$\int_1^e x^2 \ln x \, dx$$

9. 
$$\int x^2 \cosh x \, dx$$