

Find or evaluate the integral

1. $\int \cos 5x \cos 3x \, dx$

2. $\int \frac{1}{x\sqrt{9x^2+1}} \, dx$

3. $\int \frac{8x}{x^3+x^2-x-1} \, dx$

4. $\int \frac{e^x}{(e^{2x}+1)(e^x-1)} \, dx$