

Evaluate the following integrals.

1. $\int e^x \cos(x) dx$

2. $\int x^2 \sin(x^3) dx$

3. $\int \frac{\sin(x)}{1 + \cos(x)^2} dx$

4. $\int x \ln(x) dx$

5. $\int \arcsin(x) dx$

6. $\int \frac{e^{\sqrt{x}}}{\sqrt{x}} dx$