

Evaluate the following indefinite integrals

1.  $\int x^4 - 3x^3 + \pi \, dx$

2.  $\int -\sin(2x) \, dx$

3.  $\int e^x + \frac{1}{x} \, dx$

4.  $\int 3x^2(x^3 + 3)^5 \, dx$

5.  $\int \cos(x^2) \, dx$