

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. $\int x\sqrt{x+1} \, dx$