# Find the following indefinite integrals and verify your answers by taking the derivative

1. $\int 3x^2 + x + \pi \, dx$

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

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

4. $\int x^{11} + \sin(x) + \ln(3)3^x \, dx$

5. $\int 2xe^{-x^2} \, dx$

6. $\int 3x^2 \sec(x^3)^2 \, dx$

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

8. $\int \tan(x) \, dx$

9. $\int \ln(x) \, dx$

10. $\int \sin(x^2) \, dx$