

1. Answer each of the following questions, showing all working:

(1) Find $\int (18x^4 - 4x - 6) dx$.

(2) Find $\int_{-2}^1 (-9x^2 - 1) dx$.

(3) Evaluate $\int_{-2\pi}^{-\pi} (-15 \sin(-x) - 10 \cos(-x)) dx$

2. Answer each of the following questions, showing all working:

(1) Find $\int (-8x^2 + 5x + 9e^x) dx$.

(2) Find $\int_1^3 (15x^2 - 10x + 9) dx$.

(3) Evaluate $\int_{-2\pi}^{\pi/2} (-12 \sin(-3x) - 8 \cos(-4x)) dx$

3. Answer each of the following questions, showing all working:

(1) Find $\int (12x^5 + x - 3) dx$.

(2) Find $\int_{-1}^1 (-9x^2 - 2x - 10) dx$.

(3) Evaluate $\int_{-3\pi}^{-2\pi} (20 \sin(2x)) dx$

4. Answer each of the following questions, showing all working:

(1) Find $\int (7x^6 + 3 \cos x - 9) dx$.

(2) Find $\int_0^2 (3x^2 + 10x - 6) dx$.

(3) Evaluate $\int_{3\pi}^{4\pi} (-20 \sin(-4x) + 3 \cos(3x)) dx$

5. Answer each of the following questions, showing all working:

(1) Find $\int (-3x^2 - 5e^x - 8 \sin x) dx$.

(2) Find $\int_{-2}^0 (9x^2 - 4x + 6) dx$.

(3) Evaluate $\int_{2\pi}^{3\pi} (20 \cos(4x)) dx$