

## Section 1-1 : Integration by Parts

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Evaluate each of the following integrals.

1.  $\int 4x \cos(2-3x) dx$

2.  $\int_6^0 (2+5x) e^{\frac{1}{3}x} dx$

3.  $\int (3t+t^2) \sin(2t) dt$

4.  $\int 6 \tan^{-1}\left(\frac{8}{w}\right) dw$

5.  $\int e^{2z} \cos\left(\frac{1}{4}z\right) dz$

6.  $\int_0^\pi x^2 \cos(4x) dx$

7.  $\int t^7 \sin(2t^4) dt$

8.  $\int y^6 \cos(3y) dy$

9.  $\int (4x^3 - 9x^2 + 7x + 3) e^{-x} dx$

