## **Integration by parts**

Evaluate 
$$\int 4x \cos(2-3x)\,dx$$

Evaluate 
$$\int \left(3t+t^2\right)\sin(2t)\,dt$$

Evaluate 
$$\int t^7 \sin\!\left(2t^4\right) dt$$

## **Integration by Substitution**

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

Evaluate 
$$\int 5(z-4) \sqrt[3]{z^2-8z} dz$$
.

Evaluate 
$$\int 90x^2 \sin(2+6x^3) \, dx$$
.

Evaluate 
$$\int \left(\cos(3t)-t^2\right)\left(\sin(3t)-t^3\right)^5 dt$$
.

## **Partial fraction**

Evaluate the integral 
$$\int \frac{4}{x^2 + 5x - 14} \, dx$$
.

Evaluate the integral 
$$\int rac{8}{3x^3+7x^2+4x}\,dx$$
 .

Evaluate the integral 
$$\int rac{4x-11}{x^3-9x^2}\,dx$$