Déterminer les intégrales indéfinies suivantes

$\int 5\,dx$

$\int x\,dx$

$\int 3x\,dx$

$\int -2x^2\,dx$

$\int (x^2-4x+3)\,dx$

$\int -5x^2\,dx$

$\int (7x-1)\,dx$

$\int \frac{x^2}{3}\,dx$

$\int 3x^4\,dx$

$\int \frac{x-5}{3}\,dx$

$\int -2x\,dx$

$\int (4-3x)\,dx$

$\int (x^3+2x^2)\,dx$

$\int (x^3-x^2+x-1)\,dx$

$\int \left(x+1-\frac{3}{x^2}\right)dx$

$\int \frac{1}{4}(3-5x)\,dx$

$\int \left(5x+3+\frac{5}{x^2}\right)dx$

$\int 3\left(x^2+x\right)dx$

$\int \left(x+\frac{2}{\sqrt{x}}\right)dx$

$\int (x-1)(x+1)\,dx$

$\int (3x^2+2x+2)\,dx$

$\int x^9\,dx$

$$\int \frac{1}{x^4}\,dx$$

$$\int \frac{5}{x^7}\,dx$$

$$\int\left(5x+\frac{2}{x^2}\right)dx$$

$$\int (2x-5)^2\,dx$$

$$\int \frac{(3x-2)^2}{x}\,dx$$

■ Solutions

$$\int 5\,dx = 5x + k$$

$$\int x\,dx = \frac{x^2}{2} + k$$

$$\int 3x\,dx = \frac{3x^2}{2} + k$$

$$\int -2x^2\,dx = -\frac{2x^3}{3} + k$$

$$\int (x^2-4x+3)\,dx = \frac{x^3}{3} - 2x^2 + 3x + k$$

$$\int -5x^2\,dx = -\frac{5x^3}{3} + k$$

$$\int (7x-1)\,dx = \frac{7x^2}{2} - x + k$$

$$\int \frac{x^2}{3}\,dx = \frac{x^3}{9} + k$$

$$\int 3x^4\,dx = \frac{3x^5}{5} + k$$

$$\int \frac{x-5}{3}\,dx = \frac{x^2}{6} - \frac{5x}{3} + k$$

$$\int -2x\,dx = -x^2 + k$$

$$\int (4-3x)\,dx = 4x - \frac{3x^2}{2} + k$$

$$\int (x^3+2x^2)\,dx = \frac{x^4}{4} + \frac{2x^3}{3} + k$$

$$\int (x^3-x^2+x-1)\,dx = \frac{x^4}{4} - \frac{x^3}{3} + \frac{x^2}{2} - x + k$$

$$\int\left(x+1-\frac{3}{x^2}\right)dx=\frac{x^2}{2}+x+\frac{3}{x}+k$$

$$\int\frac{1}{4}(3-5x)\,dx=\frac{3x}{4}-\frac{5x^2}{8}+k$$

$$\int\left(5x+3+\frac{5}{x^2}\right)dx=\frac{5x^2}{2}+3x-\frac{5}{x}+k$$

$$\int 3\left(x^2+x\right)dx=x^3+\frac{3x^2}{2}+k$$

$$\int\left(x+\frac{2}{\sqrt{x}}\right)dx=\frac{x^2}{2}+4\sqrt{x}+k$$

$$\int(x-1)(x+1)\,dx=\frac{x^3}{3}-x+k$$

$$\int\left(3x^2+2x+2\right)dx=x^3+x^2+2x+k$$

$$\int x^9\,dx=\frac{x^{10}}{10}+k$$

$$\int\frac{1}{x^4}\,dx=-\frac{1}{3x^3}+k$$

$$\int\frac{5}{x^7}\,dx=-\frac{5}{6x^6}+k$$

$$\int\left(5x+\frac{2}{x^2}\right)dx=\frac{5x^2}{2}-\frac{2}{x}+k$$

$$\int(2x-5)^2\,dx=\frac{4x^3}{3}-10x^2+25x+k$$

$$\int\frac{(3x-2)^2}{x}\,dx=\frac{9x^2}{2}-12x+4\ln(|x|)+k$$