Student Name: _____ **Score:**

Basic Integration

Sheet 2

Integrate the following w.r.t. x

$\int (3x^2 + \sin 3x + \frac{1}{x})dx$

$\int (4x^3 + \csc^2 x + \frac{2}{x^2})dx$

$\int (\cos x + s$

$\frac{e^{7x}}{2} + \sin x)dx$

$\int (\frac{7}{5}x^4 + \sin$

$\cdot \sin x + \cos x)dx$

$\int (x^5 + \frac{x}{3}$

$\cos 7x - \sin^2 x)dx$

$\int (\sin 4x + e^{3x} + 5x^4)dx$

$\int (2x^7 + \frac{e^{3x}}{4} + \csc^2 x)dx$

Student Name: _____ Score:

Answer key

Basic Integration

Sheet 2

$x^3 - \frac{\cos 3x}{3} + \ln(|x|) + C$

$x^4 - \cot x - \frac{2}{x} + C$

$\sin(x) + ta$

$e^x + \frac{e^{7x}}{4} - \cos x + C$

$\frac{7x^5}{25} - \frac{\cos 3x}{3} +$

$\cos x + \sin x + C$

$\frac{x^6}{6} + \frac{x^8}{24} +$

$\frac{\ln 7x}{7} + \frac{\sin 2x}{4} - \frac{x}{2} + C$

$-\frac{\cos 4x}{4} + \frac{e^{3x}}{3} + x^5 + C$

$\frac{x^8}{4} + \frac{e^{3x}}{12} - \cot x + C$