

③ iii)

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$$\int 5 \sin 3x + \frac{1}{x} dx \quad \begin{array}{l} \frac{1}{x} = x^{-1} \\ = \ln x \end{array}$$

$$= -\frac{5}{3} \cos 3x + \ln x + C$$

iv) $\int_2^5 (3x+1)(6x+2) dx$

	$3x$	1
$6x$	$18x^2$	$6x$
2	$6x$	2

$$\int_2^5 18x^2 + 12x + 2 dx$$

$$= \left[6x^3 + 6x^2 + 2x \right]_2^5 + C$$

$$= \left[6 \times 5^3 + 6 \times 5^2 + 2 \times 5 \right] - \left[6 \times 2^3 + 6 \times 2^2 + 2 \times 2 \right]$$

$$= [750 + 150 + 10] - [48 + 24 + 4]$$