



**CHEMISTRY ONLINE**  
— **TUITION** —

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# **PURE MATH**

## **ALGEBRA AND FUNCTION**

<b>Level &amp; Board</b>	<b>EDEXCEL (A-LEVEL)</b>
<b>TOPIC:</b>	<b>INTEGRATION</b>
<b>PAPER TYPE:</b>	<b>QUESTION PAPER - 11</b>
<b>TOTAL QUESTIONS</b>	<b>8</b>
<b>TOTAL MARKS</b>	<b>26</b>

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## INTEGRATION – 11

1. Use differentials to approximate the value of  $\sin 61^\circ$ .

[4]

2. Evaluate  $\int \frac{1-x^2}{1+x^2} dx$

[3]

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3. Evaluate  $\int \sin(a + b)x dx$

[3]

4. Evaluate the indefinite integral

$$\int \ln x \times \frac{1}{x} dx$$

[4]

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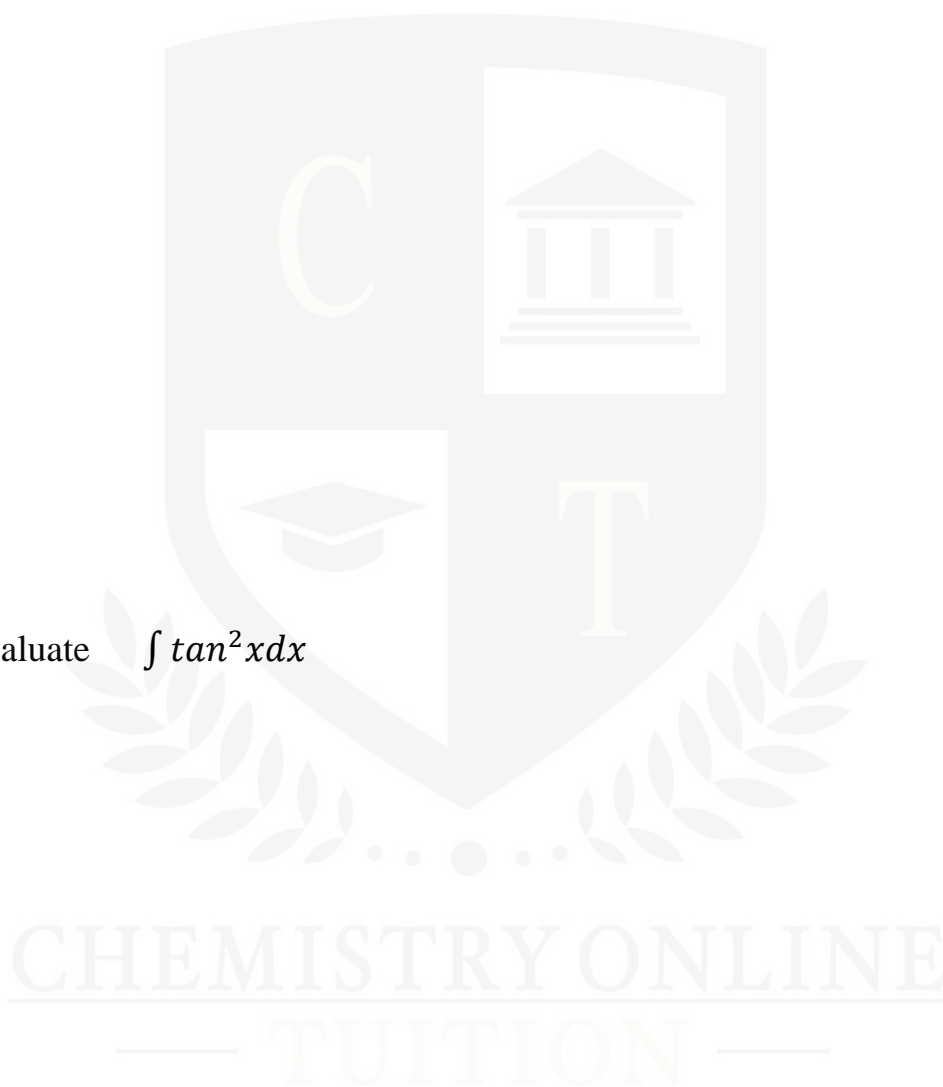
5. Evaluate the indefinite integral

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

[2]

6. Evaluate  $\int \tan^2 x dx$

[3]



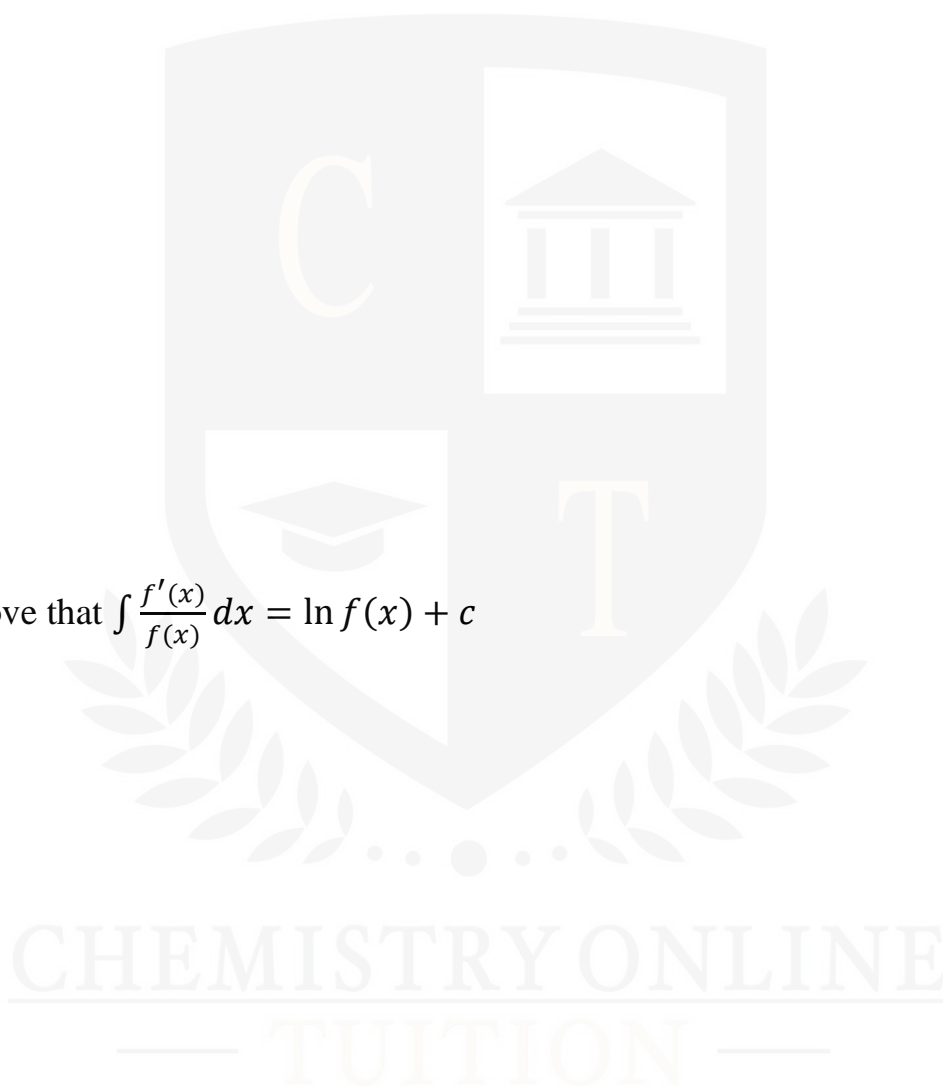
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7. Evaluate  $\int \frac{1}{(2x+3)^4} dx$

[2]

8. Prove that  $\int \frac{f'(x)}{f(x)} dx = \ln f(x) + c$

[5]



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**DR. ASHAR RANA**



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