

$$(i) \int_0^4 e^{\frac{x}{2}} dx$$

$$u = \frac{x}{2}$$

$$\frac{du}{dx} = \frac{1}{2}$$

$$dx = 2du$$

$$2 \int_0^4 e^u du$$

$$2e [2e^u]_0^4$$

$$[2e^{\frac{x}{2}}]_0^4$$

$$(2e^{\frac{4}{2}}) - (2e^{\frac{0}{2}})$$

$$14.78 - 2$$

$$\underline{12.78}$$

$$(ii) \int_0^4 \frac{5x+13}{(2x+1)(x+4)} dx$$

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