

+C

$$\textcircled{2} \text{ai} \int \frac{2x}{(4+3x^2)} dx = \frac{\ln(3x^2+4)}{3} + C$$

$$\text{aii} \int_0^4 e^{1/2x} dx = \left[2e^{1/2x} \right]_0^4 = 12.778$$

$$\text{iii} \int_0^4 \frac{5x+13}{(2x+1)(x+4)} dx = \ln 54 = 3.989$$