

$$\begin{aligned} \textcircled{\#4} \textcircled{a} \int (2x-3)^4 dx &= \frac{1}{2} \int (2x-3)^4 (2dx) = \frac{1}{2} \frac{(2x-3)^5}{5} + C \\ &= \frac{(2x-3)^5}{10} + C \\ u &= 2x-3 \\ du &= 2dx \\ \frac{1}{2} \int u^4 du &= \\ &= \frac{1}{2} \left( \frac{u^5}{5} \right) + C. \end{aligned}$$