

LÖSUNG ZU 42:

i)

$$u = 2x - 3$$

$$u' = \frac{du}{dx} = 2 \rightarrow dx = \frac{1}{2} \cdot du$$

$$\begin{aligned} \int \frac{1}{(2x-3)^{12}} dx &= \int \frac{1}{u^{12}} \cdot \frac{1}{2} du = \int u^{-12} \cdot \frac{1}{2} du = -\frac{1}{11} \cdot u^{-11} \cdot \frac{1}{2} + c = -\frac{1}{22 \cdot u^{11}} + c \\ &= -\frac{1}{22 \cdot (2x-3)^{11}} + c \end{aligned}$$

