

$$\begin{aligned}\int_2^3 \ln(t^2 - t + 1) dt &= -\int_3^2 \ln(t^2 - t + 1) dt = \int_3^2 -\ln(t^2 - t + 1) dt = \\ &= \int_3^2 \ln(t^2 - t + 1)^{-1} dt = \int_3^2 \ln \frac{1}{t^2 - t + 1} dt\end{aligned}$$