



$$\begin{aligned} &= -2 \int \left( \frac{1/9}{2t-3} - \frac{1/9}{2t+3} + \frac{1/3}{t^2} \right) dt \\ &= -\frac{2}{9} \int \frac{dt}{2t-3} + \frac{2}{9} \int \frac{dt}{2t+3} - \frac{2}{3} \int \frac{dt}{t^2} \\ &= -\frac{1}{9} \ln|2t-3| + \frac{1}{9} \ln|2t+3| + \frac{2}{3} \frac{1}{t} + C \\ &= \frac{1}{9} \ln \left| \frac{2\sqrt{1-x}+3}{2\sqrt{1-x}-3} \right| + \frac{2}{3\sqrt{1-x}} + C \end{aligned}$$