

Ex 1 c)

$$\begin{aligned} & \int \frac{dx}{1 - \sin x} \\ &= \int \frac{\frac{2}{1+t^2} dt}{1 - \frac{2t}{1+t^2}} \\ &= \int \frac{2 dt}{1 + t^2 - 2t} \\ &= \int \frac{2 dt}{(1-t)^2} \\ &= -\frac{2}{1-t} + C \\ &= \frac{2}{\tan \frac{x}{2} - 1} + C \end{aligned}$$