

STEP/Integration Q6 (21/6/23)

$$\int \sin x \cos^2 x \, dx$$

Solution

Noting that $\int \sin x \, dx = -\cos x$, let $u = \cos x$,

so that $du = -\sin x \, dx$, and

$$\int \sin x \cos^2 x \, dx = -\int u^2 \, du \text{ etc}$$