5.) $\int 11\cos^3 x \, dx$ $\qquad$ $\cos^2 x = (1 - \sin^2 x)$

$= \int (11)(\cos x)(\cos^2 x) \, dx$

$\qquad\qquad\qquad U = \sin x \quad du = \cos x \, dx$

$= \int 11(\cos x)(1 - \sin^2 x) \, dx$

$= \int 11(1 - u^2) \, du$

$= 11u - \dfrac{11}{3} u^3 + C$

$= \boxed{11\sin x - \dfrac{11}{3} \sin^3 x + C}$