

$$\int [\sin^3 x \cdot \cos x] dx = \int [\sin^3 x] d(\sin x) = \int [t^3] d(t) = t^4/4 + C = \sin^4 x / 4 + C$$

$\sin x = t$

внесение под знак дифференциала

$$d(\sin x) = \cos x \cdot dx$$

$$d(\sin x) / dx = \cos x$$