$\int e^{4x} \cos 3x \, dx = \frac{3e^{4x} \sin(3x)}{13} + \frac{4e^{2x} \cos(3x)}{13} + C$ SU(x) dV(x) = U(x) V(x)- SV(x) du (x) Uz cos 3x; dvz e2xdx > duz - 38in 3x dx; Vz 1 e2x Se2x cos3xdx = 1e2x cos3x - Sf 3 e2x ein3x dx = = 1 e 2x cos 3x + \ 3 e 2x sin3x dx SI e 2x 8/n 3 x dx -> Uh 3 sin3x du 9 as 3x dx dvzezxdx Vz ezx 53 e2x sin3x dx = 3 e2x sin3x - 19 e2x cos 3x dx Se2x053xdxzfe2x053x+3e2x8in3x+ - 9e2x053x0/x Je2x cos3x dx + Jge2x cos3v dx = fe2x cos3x + ge2x es3x ~ lo2x cos3xdx z 3 c2x sin3x + 2 e2xos3x.