

أحسب التكاملات التالية :

$$J_1 = \int_0^{\frac{\pi}{2}} \cos^2 x \sin^3 x \, dx \quad , \quad J_2 = \int_{\frac{\pi}{4}}^{\frac{\pi}{2}} (\cos x \cdot \sin x)^3 \, dx$$

$$J_3 = \int_0^{\frac{\pi}{6}} (\cos x + \sin x)^2 \, dx \quad , \quad J_4 = \int_0^{\frac{\pi}{3}} \cos^2 x \, dx$$

$$J_5 = \int_0^{\frac{\pi}{2}} \sin^2 x \, dx \quad , \quad J_6 = \int_{\frac{\pi}{2}}^{\pi} \cos^3 x \, dx$$

$$J_7 = \int_0^{\frac{\pi}{2}} \sin^4 x \, dx \quad , \quad J_8 = \int_0^{\frac{\pi}{2}} \cos^2 x \sin^2 x \, dx$$

إعداد الأستاذ : محمد أنفلوس