

## ZAB0474 – Física Geral e Experimental IV

### Tabela de integrais

$$\int_0^{\infty} x^n e^{-ax} dx = \frac{n!}{a^{n+1}}$$

$$\int_0^{\infty} x e^{-ax^2} dx = \frac{1}{a}$$

$$\int_0^{\infty} x^2 e^{-ax^2} dx = \frac{1}{4} \sqrt{\frac{\pi}{a}}$$

$$\int_0^{\infty} x^3 e^{-ax^2} dx = \frac{1}{a^2}$$

$$\int_0^{\infty} x^4 e^{-ax^2} dx = \frac{3}{8} \sqrt{\frac{\pi}{a^5}}$$

$$\int \sin^2 x dx = \left[ \frac{x}{2} - \frac{\sin 2x}{4} \right]$$