$\mathbb{E}[X^2] = \int_{-\infty}^{\infty} x^2 f(x)\,dx$

$\int_{-\infty}^{\infty} x^2 \frac{1}{\sqrt{2\pi}} e^{-x^2/2}\,dx$

$\int_{-\infty}^{\infty} x^2 \frac{1}{\sqrt{2\pi}} e^{-x^2/2}\,dx = \