

$$V^{(I)}(x) - E^{(I)}$$

$$V^{(I)}(x) = \frac{1}{2}x^2$$

$$V^{(F)}(x) = \frac{1}{2}(x-a)^2$$

$$E^{(I)} = n^{(I)} + \frac{1}{2}$$

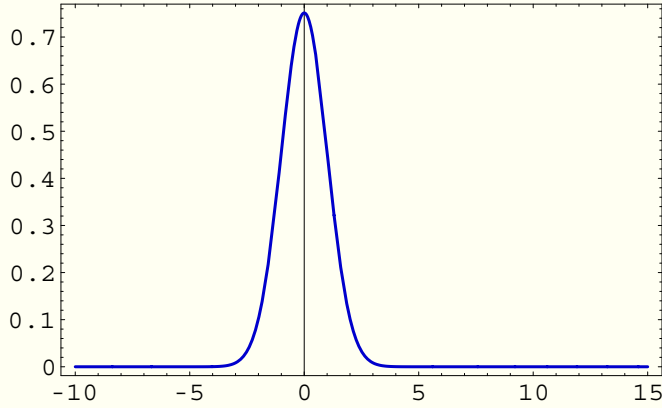
$$E^{(F)} = n^{(F)} + \frac{1}{2}$$

$$a = 1$$

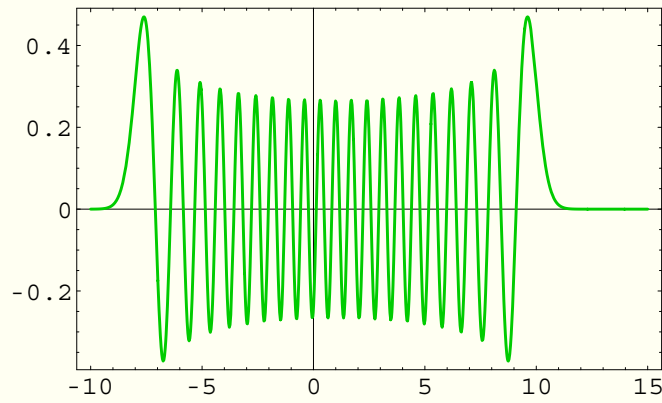
$$n^{(I)} = 0$$

$$n^{(F)} = 40$$

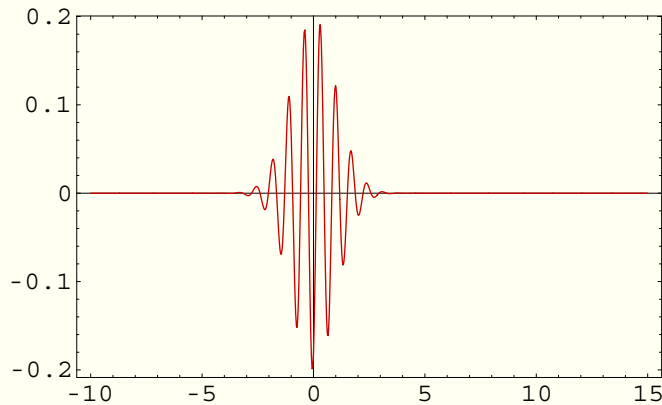
$$V^{(F)}(x) - E^{(F)}$$



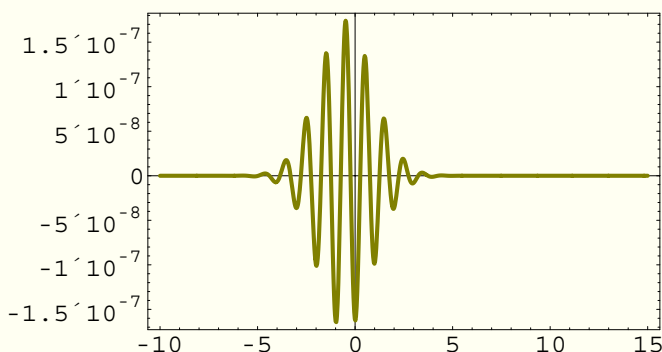
$$\psi^{(I)}(x)$$



$$\psi^{(F)}(x)$$



$$f(x) = \psi^{(I)}(x)\psi^{(F)}(x)$$



$$\delta = 1$$

$$\tilde{f}(x) = \frac{1}{\pi^{1/2}\delta} \int_{-\infty}^{\infty} \exp\left(-\frac{(x'-x)^2}{\delta^2}\right) f(x') dx'$$