$$G(x) = \frac{1}{\sqrt{2\pi}\sigma_x} e^{-\frac{x^2}{2\sigma_x^2}} \qquad (1D)$$

$$G'(x) = \frac{-x}{\sqrt{2\pi}\sigma_x^3} e^{-\frac{x^2}{2\sigma_x^2}} \qquad (1D)$$

$$G(x,y) = \frac{1}{2\pi\sigma_x\sigma_y} e^{-\frac{1}{2}\left(\frac{x^2}{\sigma_x^2}+\frac{y^2}{\sigma_y^2}\right)} \qquad (2D)$$

$$G_x(x,y) = \frac{-x}{2\pi\sigma_x^3\sigma_y} e^{-\frac{1}{2}\left(\frac{x^2}{\sigma_x^2}+\frac{y^2}{\sigma_y^2}\right)} \qquad (2D)$$

$$G_y(x,y) = \frac{-y}{2\pi\sigma_x\sigma_y^3} e^{-\frac{1}{2}\left(\frac{x^2}{\sigma_x^2}+\frac{y^2}{\sigma_y^2}\right)} \qquad (2D)$$

$$G(x,y,z) = \frac{1}{(2\pi)^{3/2}\sigma_x\sigma_y\sigma_z} e^{-\frac{1}{2}\left(\frac{x^2}{\sigma_x^2}+\frac{y^2}{\sigma_y^2}+\frac{z^2}{\sigma_z^2}\right)} \qquad (3D)$$

$$G_x(x,y,z) = \frac{-x}{(2\pi)^{3/2}\sigma_x^3\sigma_y\sigma_z} e^{-\frac{1}{2}\left(\frac{x^2}{\sigma_x^2}+\frac{y^2}{\sigma_y^2}+\frac{z^2}{\sigma_z^2}\right)} \qquad (3D)$$