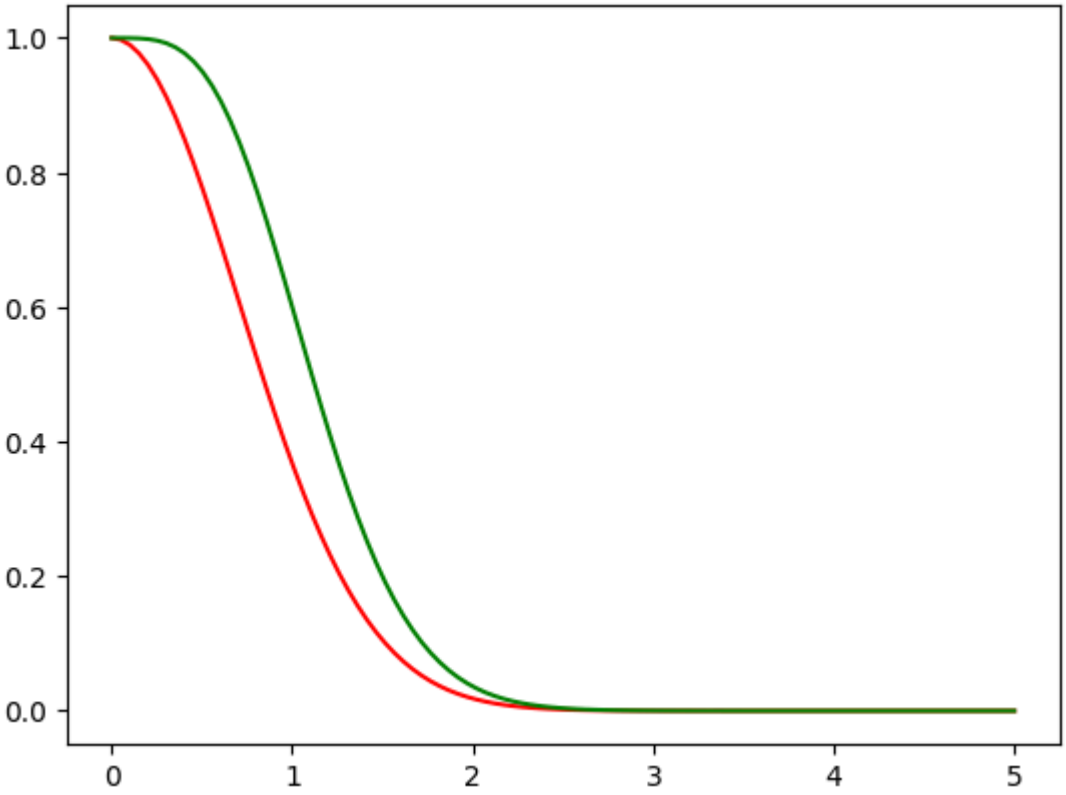
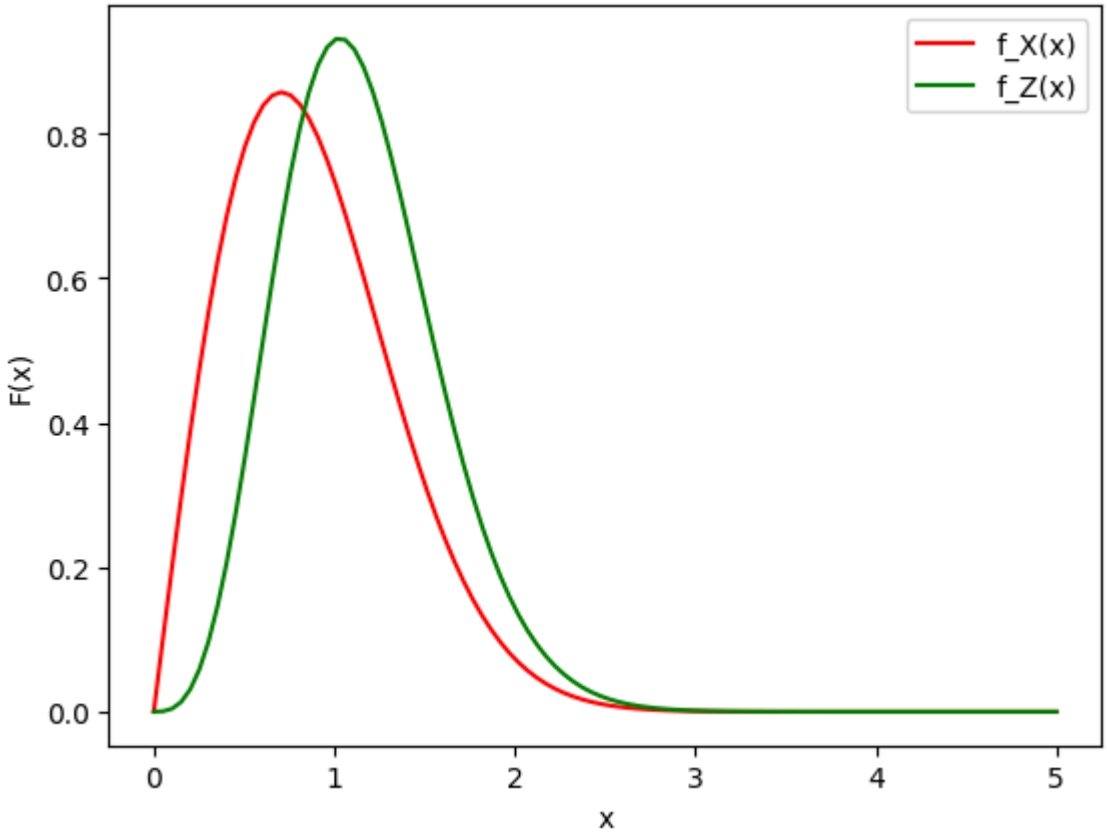
In [ ]:
```
import matplotlib.pyplot as plt
import numpy as np

x = np.linspace(0, 5, 100)
alpha = 1

F_X = lambda x, alpha : 1 - np.exp(-x**2/alpha)
f_X = lambda x, alpha : 2*x*np.exp(-x**2/alpha)/alpha
F_Z = lambda x, alpha : 2 * np.exp(-x**2/alpha) - np.exp(-2*x**2/alpha)
f_Z = lambda x, alpha : 4 * x / alpha * (np.exp(-x**2/alpha)/alpha
                                         - np.exp(-2*x**2/alpha))

plt.plot(x, 1 - F_X(x, alpha), color="red")
plt.plot(x, F_Z(x, alpha), color="green")
plt.show()
plt.plot(x, f_X(x, alpha), color="red", label="f_X(x)")
plt.plot(x, f_Z(x, alpha), color="green", label="f_Z(x)")
plt.xlabel("x")
plt.ylabel("F(x)")
plt.legend()
plt.show()
```




f_X(x)
f_Z(x)
F(x)
x
0.0
0.2
0.4
0.6
0.8
0
1
2
3
4
5