MATLAB Ex. (Bonus 1)

Consider a WiFi (IEEE 802.11n standard) transmission-reception system operating at f =2.4 GHz or f =5 GHz band with 0 dBm (1 mW) output power from the transmitter. The gain of the transmitter antenna is 1 dBi and that of receiving antenna is 1 dBi. It is assumed that there is no system loss, therefore L = 1.

Write Matlab code that uses the Friis equation to plot the received power in dBm for a range of distances 1, 2, 4, 8, 16, and 32 meters.