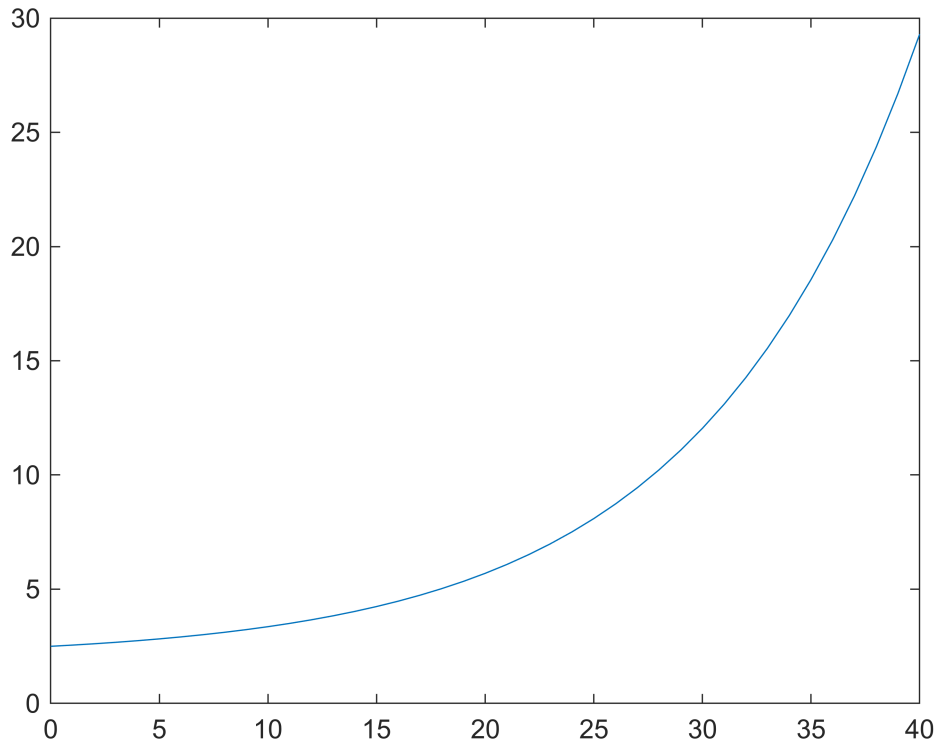
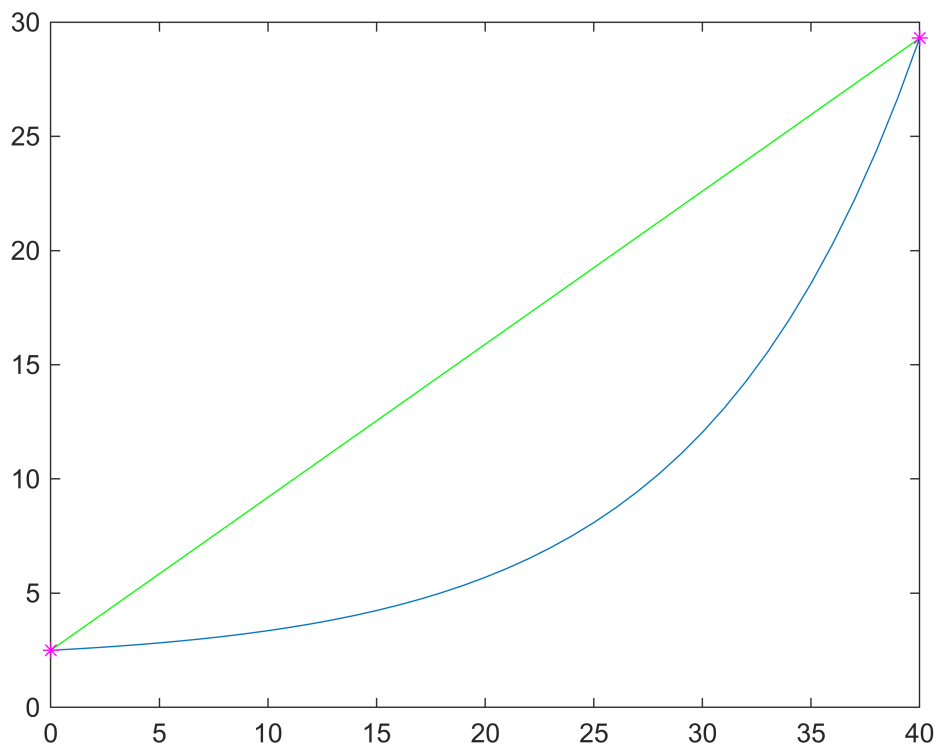


Let's assume $y = 0.5e^{(0.1x)} + 2$. Let's plot this function from $x = 0$ to 40

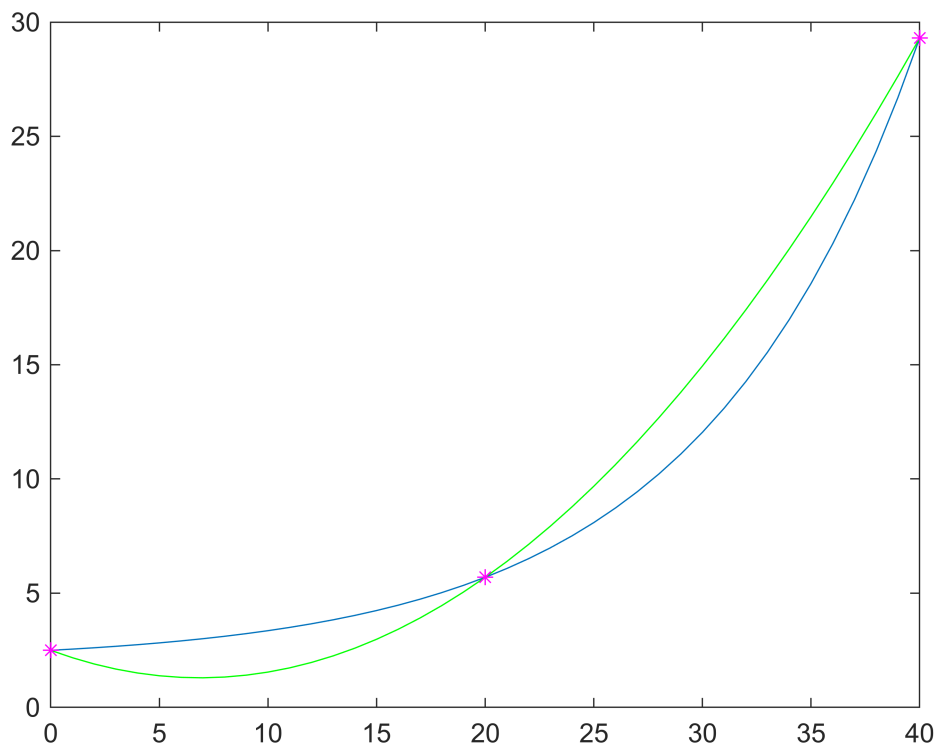


Now let's assume that we don't know this function, but we know only some points on this function.

For example, if we only know 2 points with equal interval between 0 and 40, then we can use linear interpolation (a first-order Lagrange polynomial) to predict the unknown function



Now assume that we only know 3 points with equal interval between 0 and 40, then we can use a polynomial interpolation (a second-order Newton polynomial) to predict the unknown function



Now assume that we only know 4 points with equal interval between 0 and 40, then we can use a polynomial interpolation (a 3th-order Newton polynomial) to predict the unknown function

