## EE424 Homework1 (MATLAB Exercise)

(1) Plot the sequence

| $\mathrm{n}:$ | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathrm{X}[\mathrm{n}]$ | 1 | 2 | 3 | 4 | 3 | 2 | 1 |

(2) Generate and plot $\delta[n]$ for $-6 \leq n \leq 6$
(3) Generate and plot $u[n]$ for $-6 \leq n \leq 6$
(4) Generate and plot the gate pulse $G[n]=\left\{\begin{array}{ll}1 & -3 \leq n \leq 3 \\ 0 & \text { otherwise }\end{array}\right.$ for $-6 \leq n \leq 6$
(5) Generate and plot $\delta[n-2]$ for $-6 \leq n \leq 6$
(6) Generate and plot $u[n-2]$ for $-6 \leq n \leq 6$
(7) Generate and plot the gate pulse $\mathrm{G}[\mathrm{n}-2]$ for $-9 \leq n \leq 9$

