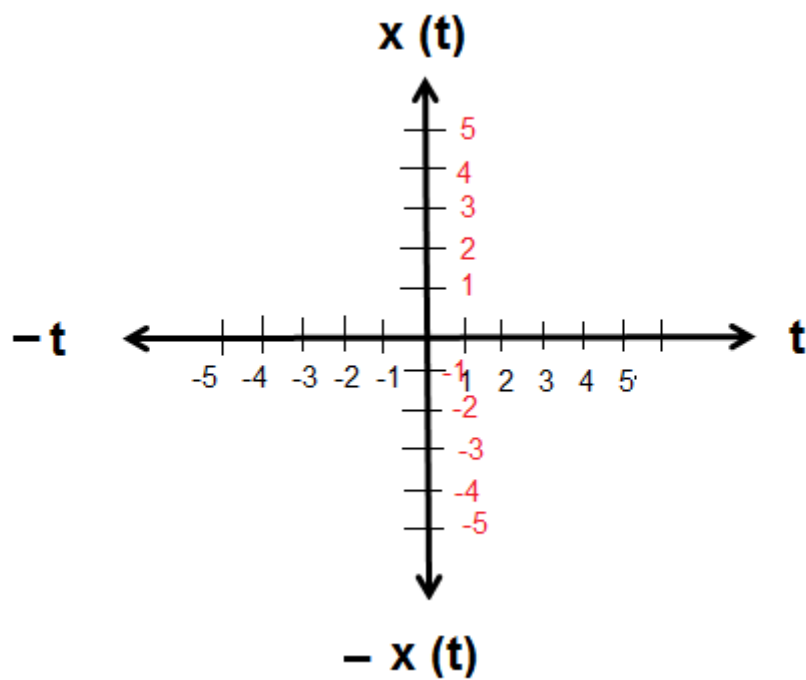
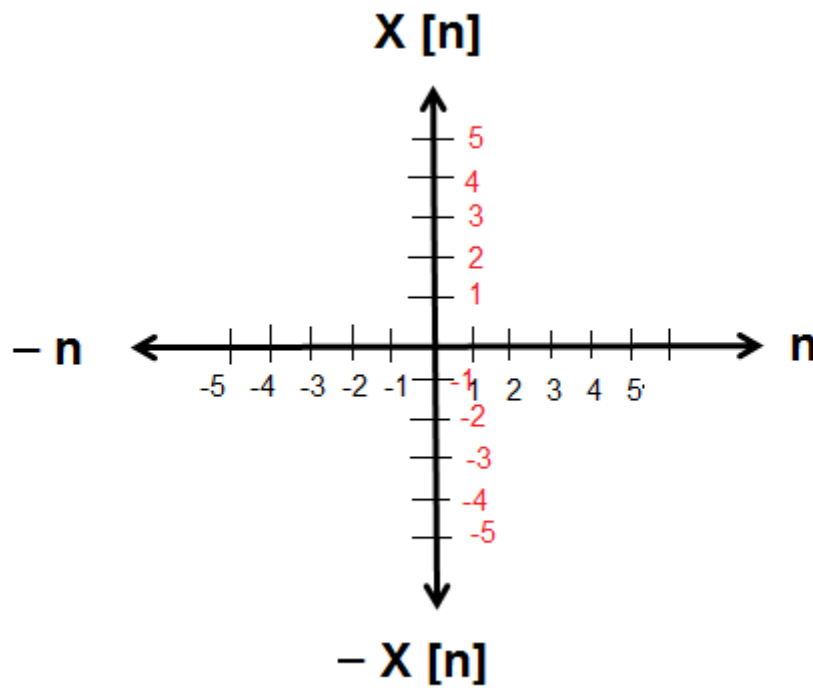


## Signal Drawing

### 1. Countious signal



## 1. Discrete signal

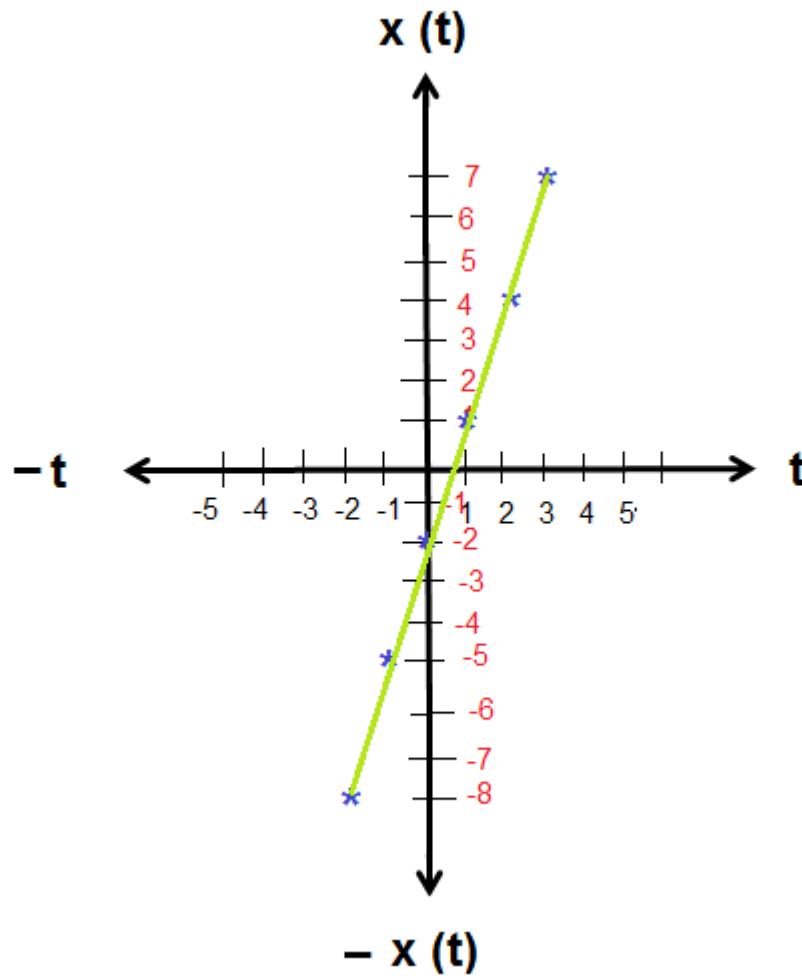


**Example 1:**

Draw the following signal  $X(t)$

$$X(t) = \begin{cases} X(t) = 2t + t - 2 & t = -2, -1, 0, 1, 2, 3 \\ X(t) = 0 & \text{else} \end{cases}$$

| t  | $X(t) = 2t + t - 2$                                 |     |
|----|-----------------------------------------------------|-----|
| -2 | $X(-2) = 2*(-2) + (-2) - 2$<br>$X(-2) = -4 - 2 - 2$ | - 8 |
| -1 | $X(-1) = 2*(-1) + (-1) - 2$<br>$X(-1) = -2 - 1 - 2$ | - 5 |
| 0  | $X(0) = 2*(0) + (0) - 2$<br>$X(0) = 0 + (0) - 2$    | - 2 |
| 1  | $X(1) = 2*(1) + (1) - 2$<br>$X(1) = 2 + 1 - 2$      | 1   |
| 2  | $X(2) = 2*(2) + (2) - 2$<br>$X(2) = 4 + 2 - 2$      | 4   |
| 3  | $X(3) = 2*(3) + (3) - 2$<br>$X(3) = 6 + 3 - 2$      | 7   |



**Example 2:**

Draw the following signal

$$x[n] = \begin{cases} n & n \geq 0 \\ 0 & n < 0 \end{cases}$$

**Solution**

| n  | X [n] |
|----|-------|
| 0  | 0     |
| 1  | 1     |
| 2  | 2     |
| 3  | 3     |
| -1 | 0     |
| -2 | 0     |

