**Experiment no. 1**

**Aim : To study the basic continuous and discrete signals using Matlab**

**Software required : Matlab 7.0**

**Theory:**

Signals are represented mathematically as functions of one or more independent variables. Here we focus attention on signals involving a single independent variable. For convenience, this will generally refer to the independent variable as time.

There are two types of signals: continuous-time signals and discrete-time signals.

Continuous-time signal: The variable of time is continuous. A speech signal as a function of time is a continuous-time signal.

Discrete-time signal: The variable of time is discrete. The weekly stock market index is an example of discrete-time signal.

Following are some of the basic signals

1. Unit Step
2. Discrete Time Unit Step



1. Continuous Time Unit Step



1. Unit Impulse
2. Discrete Time Unit Impulse

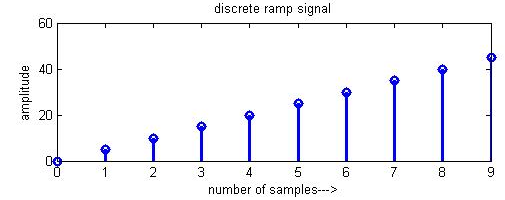


1. Continuous Time Unit Impulse

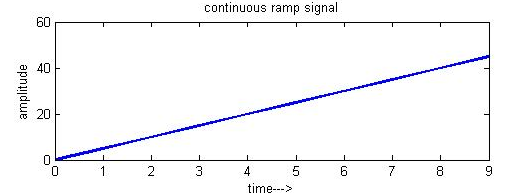
where



1. Unit Ramp
2. Discrete Time Ramp



1. Continuous Time Ramp



**Result:-**

**Conclusion:-**