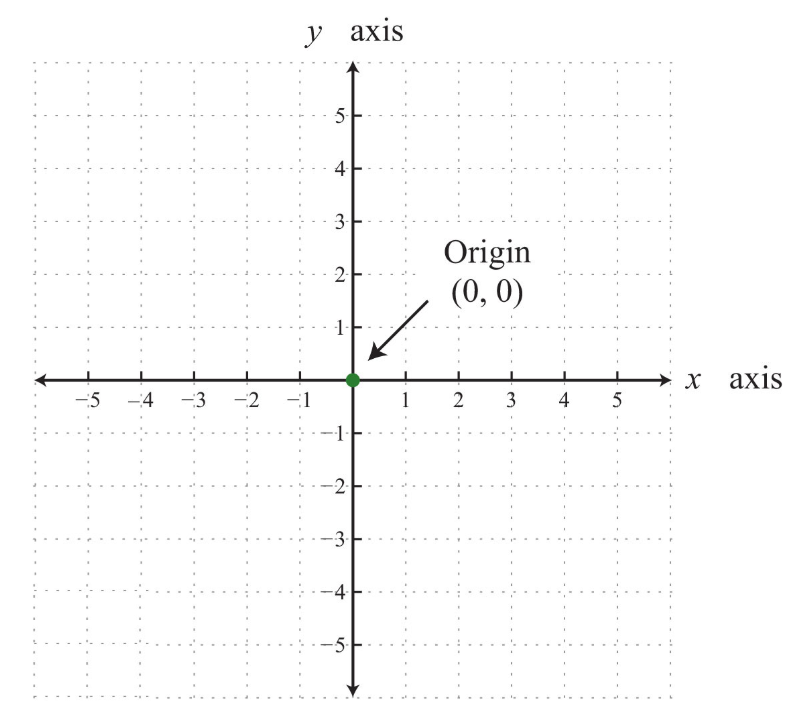
**What is a Graph?**

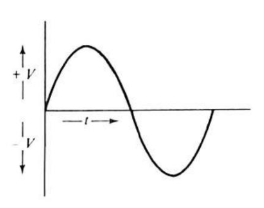
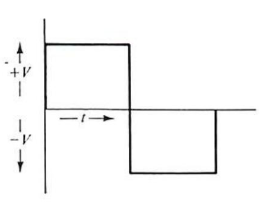
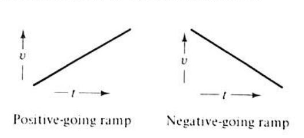
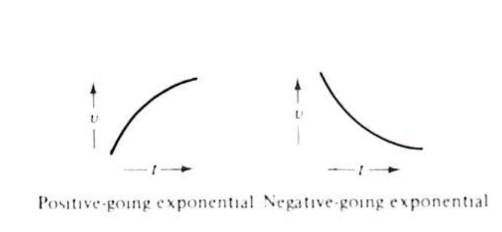
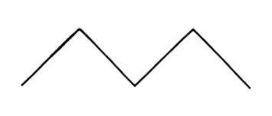
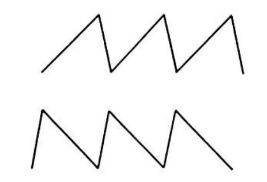
* **Graphs have two Axis**:
  + **Horizontal axis** also known as the **X-axis**
  + **Vertical axis** also known as the **Y-axis**
  + The Center of the Graph where the axis’ intercept is known as the **Origin**

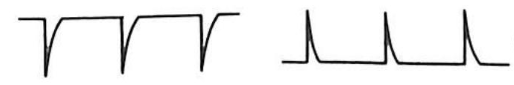


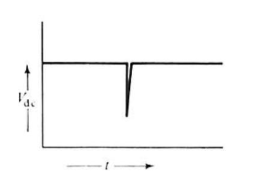
**What is a Waveform?**

* **Two types** of waveforms:
  + **Repetitive** or **Periodic** waveforms are composed of identical repeating cycles
  + **Aperiodic** waveforms are waveforms that are not identical for successive cycles
    - (A = “without”, “not”, or “no”)
    - Aperiodic = (No)periodic
    - Arrythmia = No rhythm or irregular heartbeat
    - Apathy = No interest or concern
    - Astable Multivibrator = No stable state
* Any single point on the waveform represents an **Instantaneous Value** on the graph

**Miscellaneous Periodic/Repetitive Waveforms:**

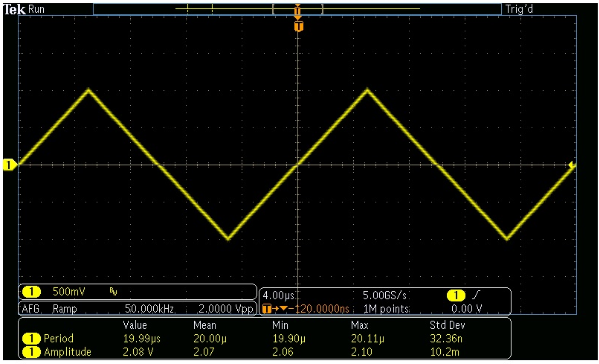
* **Sinusoidal**. The most common electrical waveform is the sine wave.
* **Square or Rectangular.** 
* **Ramp**
* **Exponential**
* **Triangle**
* **Sawtooth.**
* **Spike Waveforms**

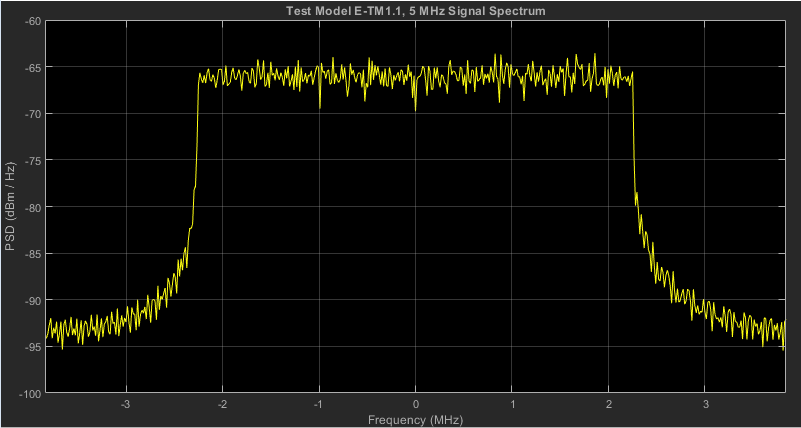


**Aperiodic Waveform:**

* **Transient on a dc voltage**

**Display Methods**

* Graphs/Waveforms in Electronics:
  + **Oscilloscope (waveform)**:
    - Y axis = Amplitude (Volts)
    -  X axis = Time
  + **Spectrum Analyzer (bode plot)**:
    - Y axis = Gain (dB)
    - X axis = Frequency



**References**:

Image, Graph. (n.d.). Retrieved from <https://camo.githubusercontent.com/a8d7c7e87bf436dc3992d9c930e435e2a5d2f74c/68747470733a2f2f7361796c6f72646f746f72672e6769746875622e696f2f746578745f656c656d656e746172792d616c67656272612f73656374696f6e5f30362f63383062373236386163386363326363366263643566626466393965363037322e6a7067>.

Image, Oscilloscope Display. (n.d.). Retrieved from <https://www.allaboutcircuits.com/uploads/articles/Tek_WebInterface.jpg>.

Image, Spectrum Analyzer. (n.d.). Retrieved from <https://www.mathworks.com/help/examples/lte/win64/xxlteTestModelToolSnap.png>.

Bell, D. A. (1997). *Solid state pulse circuits*. Sarnia, ON: David A. Bell.