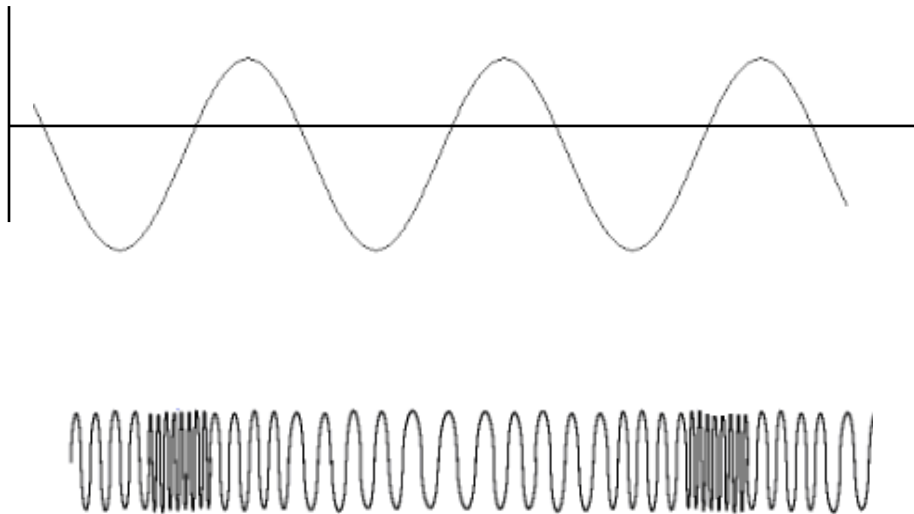


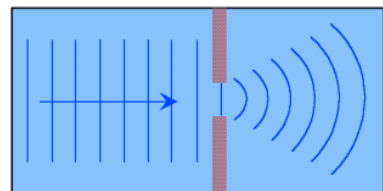
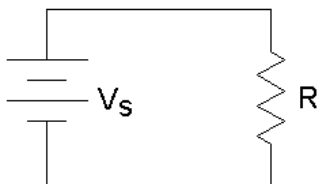
Define:

Crest	Electromagnetic waves	Ohm's Law
Trough	Vacuum	Voltage (measured in....)
Compressions	Frequency	Fuse
Rarefactions	Mechanical Wave	Electrical discharge
Amplitude	Current (measured in...)	Series circuit
Wavelength	Electric circuit	Parallel circuit
Interference	Static electricity	Resistance (measured in...)
Wave	Atoms	Doppler Effect
Vibration	Protons	Pitch
Medium	Electrons	Sound Intensity (measured in...)
Transverse wave	Neutrons	
Longitudinal wave	Insulators	
Diffraction	Conductors	
Refraction		

Use these terms to label the waves: Crest, Trough, Wavelength, Amplitude, Transverse, Longitudinal, Rest/Equilibrium, Compression, and Rarefaction



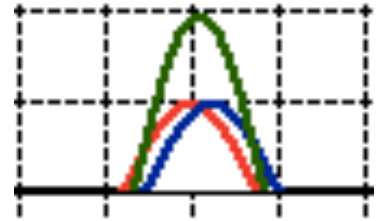
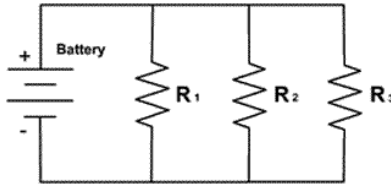
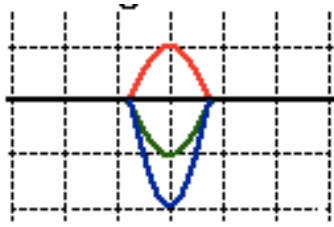
Label the following pictures with these terms: Refraction, Reflection, Series Circuit, Constructive Interference, Parallel Circuit, Diffraction, and Destructive Interference



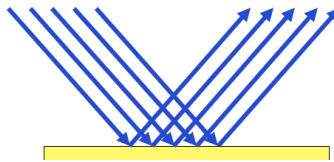
1. _____

2. _____

3. _____

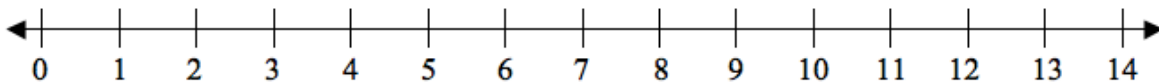


4. _____ 5. _____ 6. _____



7. _____

Label the following parts on the axis and then look up the pH of the substances and correctly place them on the graph. Terms: Acids, Bases, Neutral, Donates OH⁻, Donates H⁺
 Substances: Household Ammonia, Vinegar, Tomato Juice, Toothpaste, Water, and Eggs



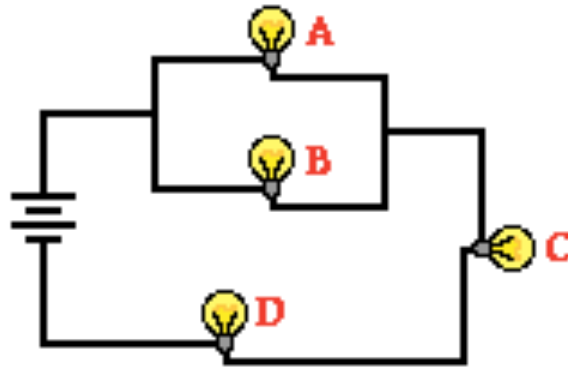
Questions:

- 1) Why do the judges of American Idol switch out every couple of years? (based on physics...)

- 2) Put the electromagnetic waves in order from shortest to longest:
 X-rays, Radio waves, Ultraviolet waves, Visible Light, Microwaves, Gamma Rays, Infrared waves

- 3) What are the three types of mechanical waves?

Circuits:



- 1) Is this a series or parallel circuit? _____
- 2) True or false: The light bulbs are also resistors. _____
- 3) What will happen if light bulb A goes out?
- 4) Are there any light bulbs that can cause the whole circuit to turn off? Write the letters of those bulbs.
- 5) What will happen if both A and B burn out?

**Think of circuit wires like a water hose:

- 6) A student wants to build a simple circuit. Which material would be used to design a circuit with the least amount of resistance?
 - a. Long wires with a thin diameter
 - b. Long wires with a large diameter
 - c. Short wires with a thin diameter
 - d. Short wires with a large diameter