What is an EKG? Describe the following electrical events during an EKG: P wave: Q wave: R wave: S ave: QRS complex: ST Segment: T wave: Calculate the heart rate in beats/min using the EKG data. Show your work. 3 seconds Image: Seconds 0.20 seconds 0.30 seconds 0.4 seconds Image:	Name:	Period:	Date:	EKG LAB
Describe the following electrical events during an EKG: P wave: Q wave: Q wave: R wave: QS complex: ST Segment: T wave: Calculate the heart rate in beats/min using the EKG data. Show your work.	What is an EKG?			
Q wave:	Describe the following electrical even P wave:	ents during an EKG:		
R wave:	Q wave:			
S wave:	R wave:			
QRS complex:	S wave:			
ST Segment:	QRS complex:			
T wave:Calculate the heart rate in beats/min using the EKG data. Show your work. Calculate the heart rate in beats/min using the EKG data. Show your work. $\begin{array}{c} & & & & & & & & & & & & & & & & & & &$	ST Segment:			
Calculate the heart rate in beats/min using the EKG data. Show your work.	T wave:			
$\frac{3 \text{ seconds}}{1000} \text{ (CRnCeus.com)}$	Calculate the heart rate in beats/m	in using the EKG data. Sho	ow your work.	
$\begin{array}{c} 0.20 \text{ seconds} \\ \hline 0.20 \text{ seconds} \\ \hline 0.5 \text{ mV} \\ \hline 0.04 \text{ seconds} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \begin{array}{c} P \\ P \\ P \\ \hline \end{array} \\ \hline \end{array} \\ \hline \end{array} \\ \hline \\ \hline \\ Q - T \\ \hline \end{array} \\ \hline \\ \hline \\ P - R \\ \hline \\ \hline \\ Q - T \\ \hline \\ \hline \\ Heart Rate \\ \hline \end{array} \\ \hline \\ \hline \\ \end{array} \\ \hline \begin{array}{c} P \\ P \\ \hline \\$		conds		RnCeus.com
IntervalTime (s)P-R	0.20 seconds 0.5 mV 0.04 seconds	P : P-R Q	Т 	
QRSQ-THeart Ratebeats/min	Interval P-R	Time (s)		
Heart Rate beats/min	QRS O-T			
	Heart Rate		beats/min	

Go the following web pages. Draw a sample EKG that illustrates the problem with the patient. Include possible causes and treatments. Please look up what the treatments do. Example: explain what digitalis is and its cause. Compare to the Normal EKG

Diagnosis	Cause	Treatment(s)
Sinus Arrhythmia		
http://www.rnceus.com/ekg/ekgsa.html		
Atrial fibrillation		
http://www.rnceus.com/ekg/ekgafib.html		
Sinus Tachycardia		
http://www.rnceus.com/ekg/ekgst.html		
3rd Degree Heart Block or complete		
http://www.rnceus.com/ekg/ekgthird.html		
Sinus Bradycardia		
http://www.rnceus.com/ekg/ekgsb.html		
<u> </u>		
Premature Ventricular Contractions		
nttp://www.rnceus.com/ekg/ekgpvc.ntml		

1. The electrocardiogram is a powerful tool used to diagnose certain types of heart disease. Why is it important to look at the time intervals of the different waveforms?

- 2. What property of heart muscle must be altered in order for an EKG to detect a problem? Explain.
- 3. Based on what you have learned regarding electrocardiograms, can they be used to diagnose all heart diseases or defects? Explain and use an example.

4. Describe a cardiovascular problem that could be diagnosed by a cardiologist using an electrocardiogram.

5. What is a heart block? What is the difference between a First Degree heart block and a 2:1 heart block. Explain

- 6. An Asystole has what appearance on the EKG?
- 7. Explain the digitalis effect.
- 8. What causes hypercalcemia? Explain the patterns on the EKG.
- 10. How does Premature Atrial Contraction (PAC) affect the patient?
- 11. What is Tachycardia, Sinus Rhythm and what are its common causes?

12. What is the difference between Ventricular Fibrillation (VFIB) and Ventricular Tachycardia (VTAC)