

Science Lesson 1  
Data Representation

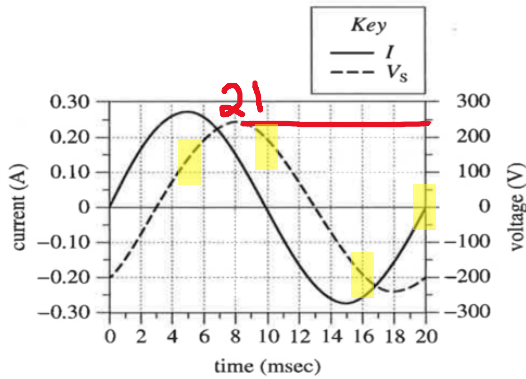


Figure 2

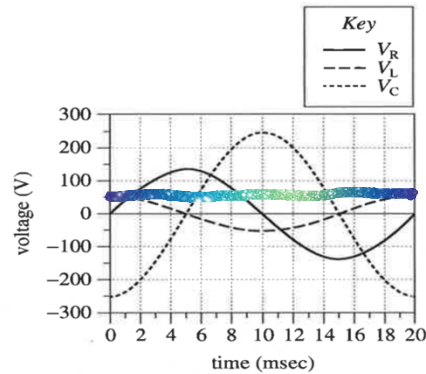


Figure 3

21. According to Figure 2, the maximum positive value of  $V_s$  was approximately:
- A. 125 V
  - B. 200 V
  - C. 250 V
  - D. 275 V
22. A *period* is the time required for a wave to complete one full cycle. Based on figure 3, the period for  $V_L$  was:
- F. 5 msec.
  - G. 10 msec.
  - H. 20 msec.
  - J. 40 msec.
23. According to Figures 2 and 3, which voltage varied the *least* during the 20 msec interval?
- A.  $V_s$
  - B.  $V_R$
  - C.  $V_L$
  - D.  $V_C$
- $V_L$  varies the least.
24. *Polarity* refers to whether a voltage is positive or negative (a voltage of 0 V has no polarity and can be ignored). Based on Figures 2 and 3, which 2 voltages were always opposite in polarity?
- F.  $V_R$  and  $V_L$
  - G.  $V_R$  and  $V_S$

H.  $V_L$  and  $V_C$

J.  $V_L$  and  $V_S$

In Figure 3  $V_L$  and  $V_C$  are always opposite except for the two points where they cross.

25. Based on Figure 2, at which of the following times was the current in the circuit flowing counterclockwise?

A. 0 msec.

B. 5 msec.

C. 10 msec.

D. 15 msec.

Under Figure 1 it states, electric current can flow through the circuit either clockwise (positive current) or counterclockwise (negative current). 5 msec. is the only answer where current (A) is below 0. The highlighted boxes above in Figure 2 show the current at the times of the possible answers.

26. J

From the chart given on the question, the charge increases and then decreases. F and G are incorrect. (I) continually decreases from 7 to 10 to 13. (I) is incorrect.

J is correct.  $V_C$  increases and decreases at the given time intervals (7, 10, 13)