



Palestine Technical University - Kadoori

Faculty of Applied Sciences

Wednesday, 19/6/2012

General Chemistry Lab2

Quiz

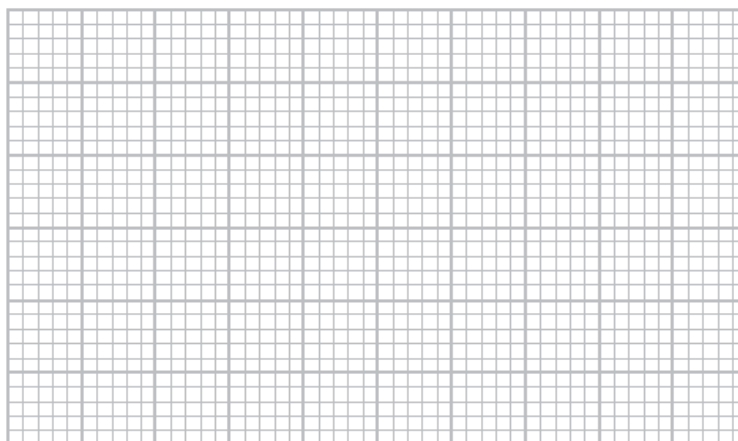
Time allowed: 10 Min.

Name (in Arabic):

Section (day):

5. Data in the following table were obtained for the titration of a 0.297-g sample of a solid, monoprotic weak acid with a 0.150 M KOH solution. Plot (at right) pH (ordinate) versus V_{KOH} (abscissa).

V_{KOH} added (mL)	pH
0.00	1.96
2.00	2.22
4.00	2.46
7.00	2.77
10.00	3.06
12.00	3.29
14.00	3.60
16.00	4.26
17.00	11.08
18.00	11.67
20.00	12.05
25.00	12.40



- a. What volume of the KOH solution is required to reach the stoichiometric point?
- b. What is the pH at the stoichiometric point?
- c. What is the pK_a of the weak acid?
- d. Calculate the number of moles of weak acid analyzed.
- e. What is the molar mass of the solid weak acid, expressed to the correct number of significant figures?