Observations

S.no	~~volume of buffer sol~~ Volume of Water (V_2) (ml)	Volume of EDTA (V_1) (ml)
		Initial / Final
1	50 ml (H_2O)	11.5 ml
2	50 ml	9 ml
3	50 ml	7.7 ml

calculations

M_1 → molarity of EDTA V_1 = Volume of EDTA

M_2 → molarity of H_2O V_2 = Volume of H_2O

$$M_1 \times V_1 = M_2 \times V_2$$

$$0.01 \times 7.7 = M_2 \times 50$$

$$M_2 = \frac{0.01 \times 7.7}{50}$$

molarity of H_2O = 0.00154

total hardness of 1L H_2O = $M_2 \times 100.08 \times 1000$ ppm

= $0.00154 \times 100.08 \times 1000$ ppm

= 154.1 ppm

Preview from Notesale.co.uk
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