

## pK<sub>a</sub>' of Methyl Red

Names \_\_\_\_\_

Mass of methyl red used to make up the stock solution \_\_\_\_\_

Molar mass of methyl red \_\_\_\_\_

Concentration of methyl red in the final buffered solutions \_\_\_\_\_ units \_\_\_\_\_

$\lambda_1$  \_\_\_\_\_ nm

Absorbance for MR<sup>-</sup> \_\_\_\_\_  $\epsilon_{1,MR^-}$  \_\_\_\_\_ units \_\_\_\_\_

Absorbance for HMR \_\_\_\_\_  $\epsilon_{1,HMR}$  \_\_\_\_\_ units \_\_\_\_\_

$\lambda_2$  \_\_\_\_\_ nm

Absorbance for MR<sup>-</sup> \_\_\_\_\_  $\epsilon_{2,MR^-}$  \_\_\_\_\_ units \_\_\_\_\_

Absorbance for HMR \_\_\_\_\_  $\epsilon_{2,HMR}$  \_\_\_\_\_ units \_\_\_\_\_

V (mL)	pH	A <sub>1</sub>	A <sub>2</sub>	[MR <sup>-</sup> ]	[HMR]	log([MR <sup>-</sup> ]/[HMR])

Attach a copy of your plot.

Slope \_\_\_\_\_  $\pm$  \_\_\_\_\_ units \_\_\_\_\_

Intercept \_\_\_\_\_  $\pm$  \_\_\_\_\_ units \_\_\_\_\_

pK<sub>a</sub>' (from the x intercept) \_\_\_\_\_  $\pm$  \_\_\_\_\_

pK<sub>a</sub>' (from the y intercept) \_\_\_\_\_  $\pm$  \_\_\_\_\_