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| **Midpoint of a weak acid titration** |
| pH = pKa |
| half of the acid has been neutralized |
| [HA] = [A-] |
| The identity of the substance being titrated might be determined based on Ka |
| Occurs at half the VOLUME that the other point occurs at |
| Is in the middle of the buffer region of a titration curve |
| pH doesn’t change much around this point. |
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| Half equivalence point |
| Image result for image, erlenmeyer flask |

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| **Equivalence Point of a weak acid titration** |
| Only the conjugate base exists; no weak acid remains |
| The concentration of the acid being titrated can be determined by MaVa = MbVb using the volume at this point |
| Ideally, the indicator should change color here |
| To calculate the pH, do a RICE problem using the conjugate base of the weak acid being titrated + water to determine the concentration of OH-. Then, take the -log [OH-] and subtract from 14. |
| Occurs at twice the VOLUME that the other point occurs at |
| Is in the middle of the steep slope portion of a titration curve |
| The identity of the substance being titrated might be determined based on molar mass |
| pH changes dramatically at this point |
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| Image result for image, erlenmeyer flask |