

What's In the Beaker? Acids, Bases, Salts, and Buffers

| Beaker | Contents |
|--------|--|
| A | 30.0 mL of 0.20 M NaOH |
| B | 50.0 mL of 0.30 M HC ₂ H ₃ O ₂ |
| C | 50.0 mL of 0.40 M NH ₄ Cl |
| D | 60.0 mL of 0.10 M HCl |
| E | 50.0 mL of 0.50 M NaC ₂ H ₃ O ₂ |
| F | 100. mL of 0.20 M NH ₃ |
| G | 75.0 mL of 0.20 M NaOH |
| H | 37.5 mL of 0.20 M NaOH |
| I | 90.0 mL of 0.20 M NaOH |

| Answer Choices |
|----------------|
| Strong acid |
| Strong base |
| Weak acid |
| Weak base |
| Acidic Salt |
| Basic Salt |
| Neutral Salt |
| Acidic Buffer |
| Basic Buffer |



QUESTIONS

In the following questions, describe what would be in the beaker (using the answer choices above) when either one of the beakers above is used or a combination of the beakers above is poured together. In addition, calculate the pH of the resulting solution.

| # | Question | Answer | pH |
|----|----------|--------|----|
| 1 | A | | |
| 2 | C | | |
| 3 | F | | |
| 4 | E | | |
| 5 | D | | |
| 6 | B | | |
| 7 | A + D | | |
| 8 | A + B | | |
| 9 | B + G | | |
| 10 | B + H | | |
| 11 | B + I | | |
| 12 | F + D | | |
| 13 | B + E | | |